Final Report

GOLD LINE CORRIDOR STUDY



Prepared by
Ralph & Goldy Lewis Center for Regional Policy Studies
University of California, Los Angeles

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Table of Contents

Acknowledgements	iv
Executive Summary	1
Section 1. Gold Line Corridor Baseline Profile and Trends	12
1.1 Overview of the Gold Line	12
1.2 Ridership Patterns	13
1.3 Demographic & Socioeconomic Characteristics and Trends of Station Areas	15
1.4 Housing Patterns of Station Areas	23
1.5 Commute Patterns of Station Areas	23
1.6 Jobs & Economic Base of Station Areas	27
1.7 Land Use Characteristics and Trends of Station Areas	31
1.8 Development Activity: Building Permit and Property Sale Patterns	43
1.9 Vacant Properties in Station Areas	50
1.10 Station Area Typologies Classifications	63
1.11 Development Goals & Plans	67
1.12 Overview of Development Projects	72
1.13 References	77
Section 2. Identification of Motivations, Tensions, and Challenges for Transit Oriented Development	78
Section 3. Transit Oriented Development Design Guidelines	99
Section 4. Strategies and Recommendations for Maximizing the Development Potential along Transit Corridors	102
Appendices	
Appendix A. Data and Methodology	
Appendix B. Overview of the Context and Characteristics of Major Projects	
Appendix C. Physical Characteristics of Station Areas and Platforms	
Appendix D. Detailed Overview of Station Area Development Goals and Plans	

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Executive Summary

Inaugurated on July 6, 2003, the Gold Line is a 13.7-mile light rail line in the Los Angeles metro rail system. The line connects the cities of Pasadena and South Pasadena and the northeastern portion of Los Angeles to the Union Station transit hub on the northern edge of downtown Los Angeles (Figure 1). Operated by the Los Angeles County Metropolitan Transit Authority (MTA), the line traverses a broad cross-section of neighborhoods as it passes through Chinatown, the diverse communities along the historic Arroyo Seco and 110 Freeway corridor, the affluent residential neighborhoods of South Pasadena and Old Town Pasadena, and extends eastward along the 210 Freeway right-of-way to its terminus at the Sierra Madre Villa Station. Over its relatively short life, the Gold Line has had substantially less ridership than MTA's Red or Blue Lines.

This study examines the characteristics of station areas and recent nearby transit-oriented development (TOD) activity within walking distance of Gold Line stations, defined as one third to a half mile depending on the major roads and geographic features. Given that the line has only been in operation for 3.5 years, the research draws from available data to provide a baseline profile of the corridor that can be used in future longer-term assessments of the impact of the line on station areas. It also discusses the motivations, tensions, and challenges identified by developers, architects, and planners of major development projects in station areas, and identifies strategies and recommendations based on their experiences.

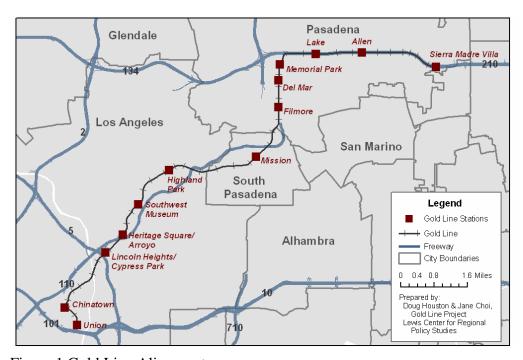


Figure 1 Gold Line Alignment

Corridor Baseline Profile and Trends

Given the short life of the line, available data do not allow for a systematic examination of trend patterns. The first part of this research, however, provides a baseline corridor profile for future assessment of the line. Data was drawn from the 1990 and 2000 decennial census and other sources to establish employment patterns, commute trends and ridership patterns prior to the opening of the Gold Line. We also compiled land use data, property sales and building permit data.

Demographics, Densities, Employment and Commute Trends

The communities along the Gold Line vary by demographic and socioeconomic characteristics (Table 1). While station areas have higher densities than the county as a whole, population density varies significantly from station to station, with the Highland Park station area being the most dense and Sierra Madre Villa being the least dense. Los Angeles station areas tend to have a higher percentage of foreign born residents. The Chinatown station area has the highest composition of seniors over 65 years of age and Asian/Pacific Islander residents while the other Los Angeles stations tend to be comprised of more children, more family households, and more Hispanic residents. The higher percentage of family households near the Lincoln Heights/Cypress Park, Heritage Square/Arroyo, and Highland Park stations suggests the need for larger housing units in these neighborhoods to accommodate families. There was a sizeable increase of Hispanic residents near the Heritage Square/Arroyo, Southwest Museum and Highland Park station areas from 1990 to 2000. With the exception of the Southwest Museum Station, station area communities in northeastern Los Angeles tend to have higher poverty rates, more households receiving public assistance, and lower levels of educational attainment. The Chinatown and Highland Park areas had a sizeable increase in poverty rates from 1990 to 2000.

The lower residential densities near stations in South Pasadena and Pasadena are consistent with the more suburban character of these communities. The Mission station area in South Pasadena and the Fillmore, Del Mar, and Memorial Park station areas have a higher composition of single-person-households and tend to be more highly educated. The Del Mar, Memorial Park, and Lake station areas in Pasadena had a significant increase in single-person households from 1990 to 2000. Station areas in South Pasadena and Pasadena generally have lower rates of poverty and public assistance compared to station areas in Los Angeles. Households near the Fillmore and Sierra Madre Villa stations have the highest percentage of households with an annual income over \$75,000. African-Americans are more highly represented in station areas in central Pasadena.

Unemployment was slightly higher in Los Angeles station areas with the exception of Lincoln Heights/Cypress Park; the unemployment rate was lowest in the Mission, Fillmore, and Sierra Madre Villa station areas. As a whole, commuting patterns in the corridor were similar to county patterns. Among stations, however, working residents near South Pasadena and Pasadena stations tended to have a solo commute, whereas working residents near Los Angeles station areas tended to have higher rates of commuting in a carpool or by public transportation. The Chinatown and Lincoln Heights station areas in Los Angeles had higher rates of biking and walking, which could in part reflect that these areas had the highest rate of carless households. Notably, the Memorial Park Station, which also had a relatively high rate of carless households, had a relatively higher rate of biking or walking.

Table 1 Relative Demographic Composition & Socioeconomic Characteristics, Station Areas, 2000

Station	Demographic Composition	Socioeconomic Status	Employment & Transportation
Chinatown	More older residentsMainly Asian/Pacific IslanderMore foreign born residents	 - Higher poverty (♠) - Higher public assistance - Lower educational attainment 	- Higher unemployment (♠) - More Transit and Bike/Walk Commuters - More HHs without a car (♠)
Lincoln Heights/ Cypress Park	- Mainly Family HHs- Mostly Hispanic- More foreign born residents	- Higher public assistance - Lower educational attainment	- More Carpool, Transit and Bike/Walk Commuters - More HHs without a car (♠)
Heritage Square/ Arroyo	- Higher Residential Density - Mainly Family HHs - Mostly Hispanic (↑)	More foreign born residentsHigher povertyHigher public assistanceLower educational attainment	- More Carpool and Transit Commuters - More HHs without a car (♠)
Southwest Museum	- Mainly Family HHs - Mostly Hispanic (↑)		- More Transit Commuters
Highland Park	- Higher Population Density - Mainly Family HHs (↑) - Mostly Hispanic (↑)	Higher poverty (↑)Higher public assistanceLower educational attainment	- More Carpool and Transit Commuters - More HHs without a car (♠)
Mission	- Mostly White/Caucasian	- Higher educational attainment (♠)	- Lower unemployment
Fillmore	- Mostly White/Caucasian	- More affluent HHs - Higher educational attainment (♠)	- Lower unemployment
Del Mar	- Mainly One-Person HHs (†) - Mostly White/Caucasian	- Higher educational attainment (♠)	
Memorial Park	- Mainly One-Person HHs (†)	- Higher educational attainment (♠)	- More Bike/Walk Commuters - More HHs without a car (♥)
Lake	- Mainly One-Person HHs (†)		- More Bike/Walk Commuters
Allen			
Sierra Madre Villa	- Lower Population Density - Mainly Family HHs	- More affluent HHs	- Lower unemployment

Note: The ↑ and ↓ symbols represents an increase/decrease in a characteristic from 1990-2000 decennial census data. The Union Station area is not included in this summary since it had no non-institutionalized residents in the Census. Classifications generally indicate if a station area had a relatively high prevalence of a characteristic on average compared to other station areas. See Section 1 of the full report for the detailed corridor profile and trend analysis.

Land Uses

Existing land uses vary substantially across Gold Line stations, with the predominant corridor uses in 2000 being residential and commercial (Table 2). In contrast, until recently, the Union Station area had no residential land uses and was dominated by government offices, bus terminals, correctional institutions and transportation facilities. While the Chinatown and Lincoln Heights/Cypress Park station areas have a relatively small proportion of residential uses, Chinatown has a sizeable amount of commercial and public uses; the Lincoln Heights/Cypress Park station area has a sizeable amount of industrial and freeway uses. Residential uses are highest along the central portion of the Gold Line between the Heritage Square/Arroyo and Mission stations and towards the end of the line near the Lake and Allen stations. In contrast, commercial uses are dominant around the Del Mar and Memorial Park stations in Pasadena.

Of stations with predominantly residential land uses, the Sierra Madre Villa station area has the highest mix of residential and commercial uses followed by Fillmore and Del Mar. Similar to the county, the largest job sector along the Gold Line Corridor is the service sector, according to 2005 data from the California Employment Development Department. The highest job densities are near Union Station, Del Mar, and Memorial Park. Jobs near Union Station include wholesale, manufacturing and transportation sector jobs. Near Del Mar, service, FIRE (finance, insurance and real estate), and retail sector jobs were dominant. Jobs in the vicinity of Memorial Park, include service, government, FIRE and information sector jobs.

Ridership

The Gold Line averaged almost 15,500 riders per day between July 2004 and August 2005. Based on MTA's station-level boarding and alighting estimates, Union Station, an important regional transit hub, had the most boarding/alightings. The Sierra Madre Villa station, the terminal stop of the line, the Memorial Park station near the Pasadena Senior Center, and the Highland Park station also had relatively higher boardings/alightings compared to the other stations. The Heritage Square/Arroyo and Southwest Museum stations had the lowest boardings/alightings.

Table 2 Summary of Gold Line Station Area Land Use, Job, and Ridership Characteristics

Station	Predominant Land Use	Composition of Residential Uses	Mix of Commercial Uses at Residential Stations	Residential Density	Job Density	Gold Line Boardings & Alightings
Union Station	Transportation & Offices			Low	High (Wholesale, Manuf., Transp.)	Very High
Chinatown	Commercial & Public Facilities			High	Moderate (Service, Govt.)	Moderate
Lincoln Heights/ Cypress Park	Industrial & Freeway			Low	Low	Low
Heritage Square/ Arroyo	Residential	SFR, 2-4 units	Low	Moderate	Low	Low
Southwest Museum	Residential	SFR	Low	Moderate	Low	Low
Highland Park	Residential	SFR, 2-4 units, MFR	Moderate	High	Low	High
Mission	Residential	SFR, 2-4 units, MFR	Moderate	Moderate	Low	Moderate
Fillmore	Residential & Commercial	SFR, Condo	High	Moderate	Moderate (Service)	Moderate
Del Mar	Residential & Commercial	SFR, Condo	High	Moderate	High (Service, FIRE, Retail)	Moderate
Memorial Park	Commercial & Public Facilities			Moderate	High (Service, Govt., FIRE, Info)	High
Lake	Residential	SFR, 2-4 units, MFR	Moderate	High	Moderate (Service, FIRE, Govt.)	Moderate
Allen	Residential	SFR, 2-4 units, MFR	Low	Moderate	Low	Moderate
Sierra Madre Villa	Residential & Commercial	SFR	Very High	Low	Moderate (Service, Retail)	High

Note: See Section 1.10 of the full report for station area classification methods.

SFR - Single-Family Residential (residential parcels with 1 unit)

MFR - Multi-Family Residential (residential parcels with 2 or more units)

Station Area Development Context

Our site surveys and in-depth interviews with developers, architects, and planners provide focused insight into major transit-oriented development projects near the Union Station, Chinatown, and Lincoln Heights/Cypress Park areas in the City of Los Angeles, the Mission station area in the City of South Pasadena, and the Del Mar, and Sierra Madre Villa Station areas in the City of Pasadena. Although many of the insights from this research may be applicable to other transit corridors, detailed analysis of TOD projects along other transit corridors was beyond the scope of this study.

The demographic, land use, and market context and the extent of recent development varies greatly across station areas. Development near Union Station offers the unique advantage of being next to the county's major multimodal transit hub, while developments in the nearby Chinatown station area benefit from a vibrant commercial and pedestrian neighborhood. Development near the Lincoln Heights Lincoln Heights/Cypress Park station was enabled by the City of Los Angeles' "adaptive reuse" ordinance which helped motivate the conversion of industrial uses into a number of residential complexes that provide affordable housing. Development in the City of South Pasadena benefited from a planning process that began before the construction of the Gold Line, which included community involvement to help ensure that TOD was integrated with the existing neighborhood. In contrast to station areas in Los Angeles, the City of Pasadena experienced strong market and development potential for many years prior to the construction of the Gold Line. TOD projects there have been able to take advantage of this momentum and of incentives established as part of the Central District Specific Plan. TOD projects have also benefited from increasingly mixed-use neighborhoods in Pasadena. This is especially true in the Del Mar station area, which is the site of the largest and most prominent TOD developments along the Gold Line corridor. Development near the Sierra Madre Villa benefits from the proximity to the station, but also from the accessibility to commercial amenities along the nearby Foothill Boulevard.

TOD Motivations, Tensions, and Challenges

In our in-depth interviews with twelve developers, six architects and seven planners we investigated the motivations for building TODs, as well as the tensions and challenges encountered by those involved in projects along the Gold Line corridor.

Motivations

Our interviews revealed four major motivations for developers building TOD projects:

- a. An expanding market and target audience
- b. Demand for an alternative way of living
- c. Help from the public sector
- d. Proximity to a transit line

Developers are motivated to build TODs in part because they see them as appealing to an increasing number of people interested in living in vibrant, higher-density urban neighborhoods. The market for these developments extends beyond the "yuppies," "dinks," and "empty nesters," often seen as the conventional target for higher-density urban projects. Developers note that families, seniors, and others being priced out of the southland's single-family housing market are increasingly interested in TOD projects. A growing number of people are willing to pay a premium for smaller dwellings if it means they can reduce commute times and be closer to urban amenities. Developers are also responding to incentives – such as density bonuses and reduced parking requirements – being offered

by cities to build TODs. In the case of Mission Meridian Village in South Pasadena, the developer was enticed by public sector funding for a subterranean parking structure. While proximity to transit was seen as a "plus" for most of the developers, nearly all of them indicated that it was the attractiveness of the location that was the primary motivator. Adjacency to rail is seen as part of the entire package that makes a site desirable for development.

Tensions

Our interviews revealed seven major tensions arising for those engaged in TOD projects:

#1: Changing a long-standing urban form dominated by low-density, single-family uses
Where TOD is being developed in and around established residential neighborhoods, interviewees
spoke of a tension between integrating the broader TOD goal of encouraging higher density dwellings
near transit stops and the desires of the community to maintain the character of existing built form.
Low-density communities of single-family homes may initially feel more threatened by the
introduction of higher density housing or mixed use developments in their neighborhood, and cannot
always appreciate the potential of accommodating smart growth or bringing in more urban amenities.
This creates a design challenge of how to make higher density look less dense, as well as a broader
challenge of "bringing the public along" to appreciate the concept of TODs. Questions arise about
how this responsibility for working with and educating the public is shared between cities and
developers.

#2: Market realities vs. attracting desired tenants

Another tension exists between the desire for pedestrian uses and market realities. In some cases the commercial uses that cities or developers are interested in attracting cannot afford the high rents in these districts. In other cases, municipal desires for tax revenue may encourage certain uses or a mix of uses that interferes with creating a good mix of pedestrian-oriented and transit friendly uses. Furthermore, with rents driven up by the high costs of land and construction, it is less likely that those who can afford to live in these developments will be transit dependent.

#3: Desire for affordable housing vs. making projects "pencil out"

Some developers (especially non-profit developers) and planners expressed a desire to build more affordable housing units near Gold Line stations. These efforts meet resistance on two fronts. The first is financial constraints not adequately covered by incentives or subsidies. High construction and land costs make it difficult to develop affordable units and still have a project "pencil out," leading many developers to choose the payment of in lieu fees over building affordable units. Second, NIMBYism from the part of residents who view affordable housing negatively – as something that will bring down the value of their homes, or introduce "undesirable" low-income neighbors – can interfere with the development of affordable units.

#4: The parking paradox

Another important tension emerges around parking requirements for TODs. It is difficult to strike the right balance between providing enough parking for residential and commercial tenants and customers who own cars and/or access the area by car, while accounting for those who access the site by rail and encouraging more people to do so. Too much parking might encourage people to drive when they could just as easily ride the train, whereas too little parking may frustrate residential and commercial tenants.

#5: Desire for a template for TODs vs. desire for flexibility

Some expressed frustration with the lack of a clear and consistent vision of TOD goals, wishing that cities have a template of standardized procedures that developers and architects could use to navigate the approval and permitting processes. At the same time, some developers and architects raised concerns about being constrained by rigid and inflexible guidelines or requirements which could prevent the development from following new approaches and "best practices."

#6: Development incentives vs. requirements/fees

Incentives such as density bonuses, higher floor-area ratios and building heights, and decreases in parking requirements allow developers to improve the profitability of their developments. Other requirements and fees can be disincentives to development. For instance, one developer spoke of the open space fee being based on the number of units built, as opposed to being based on square footage developed.

#7: Development politics – involvement of city council members in planning

In cases in which council members are in the position to approve or deny development proposals with relatively little coordination with the structured planning process, a developer may cater to the councilperson's desires and preferences first, as a strategy to get the project approved in a timely fashion. Developers looking to move a project along quickly while keeping costs down may put more attention towards "what works politically" versus working with planners who are in a better position to determine which projects are consistent with TOD goals.

Challenges

The discussed tensions manifest themselves as different kinds of concrete challenges generally falling within four categories: a) Procedural/Planning; b) Economics/Market-related; c) Cultural/ Perceptual; and, d) Physical/Environmental.

Developers, architects, and planners identified two major challenges as impeding the process of transit oriented development and causing, tension, delays, and costing money: 1) the difficulties of coordination among the multiple parties involved and 2) the complexity of building joint development and infill projects. These, along with the complexities of infill development constitute the Procedural/Planning challenges.

The Economic/Market-related challenges include the high cost of land and construction, and ill-conceived ordinances that make developments more expensive or reduce the developable square footage of a site.

The Cultural/Perceptual challenges relate to the negative attitudes towards density, and given this climate, the difficulty of being the *first* in the neighborhood to build a high-density project as well as trying to build once the community has become "sensitized" to or increasingly concerned about density.

The Physical/Environmental challenges include noise from the trains, the technical difficulties of building very close to a line, and the expenses associated with developing contaminated sites.

Despite these challenges, all twelve of the developers we interviewed indicated they would seek more TOD projects.

TOD Strategies and Recommendations

The following nine recommendations respond directly to the tensions and challenges outlined above.

#1: Plan stations near people and activities

Developers we interviewed stressed that a good location is the most important attractor to and motivation for building at a particular site. Therefore, choosing a good station location is crucial to stimulating development. Stations should be located at or in close proximity to the "front door" of communities, near other urban amenities and existing nodes and hubs of activity, such as schools, parks, and retail areas.

#2: Change a long-standing urban form dominated by low-density, single family uses

Extensive education of the public about the potential benefits of TODs is especially important during this transitional period where transit use is not yet part of the region's culture. While community meetings are important venues for developers to learn about and respond to community concerns (as well as diminish public opposition to their projects), it is necessary to begin the public conversation much earlier. Ideally, a shared community vision can be formulated prior to the designation of a transit-oriented district as part of proactive public sector planning in anticipation of a rail line.

Municipalities should also compile an inventory of "best practices" as good examples of high-density developments that make a smooth transition to the existing urban fabric. Finally, TODs are more likely to be welcomed if they increase the kinds of housing options available. Well-designed and centrally located TOD projects with smaller but more affordable units (condos, apartments, and lofts) can be appealing to those who are currently excluded from the single-family housing market.

#3: Actively recruit pedestrian-oriented, transit-friendly uses

The ideal of a transit village with pedestrian-oriented and transit-friendly uses, neighborhood retail, galleries, drug stores, bakeries, and coffee shops generating foot traffic cannot be realized if such commercial tenants do not have the financial means to rent space in new developments. Developers, who are always interested in maximizing profit, are likely to opt for larger commercial tenants (banks, furniture stores, warehouses, etc.). Therefore, the public sector can play a crucial role in identifying and attracting desirable commercial tenants. In certain cases, cities may consider offering tax incentives or even rent subsidies (for the first few years) to help create a critical mass of desirable pedestrian-oriented tenants.

#4: Preplan for TODs

Municipalities that preplan for transit oriented development in anticipation of a transit line are in a better position to attract developers and see TOD projects built in their jurisdictions. The development of <u>transit overlay zones</u> that extend ½ mile around transit stations and have defined guidelines and incentives for TODs can be extremely helpful to a) ensure that a city's vision and goals will be followed; b) minimize uncertainty for developers, letting them know beforehand what to expect from the city and what the city expects from them; and c) streamline the development process thus reducing time costs. They can also prevent political interference by members of city council, which some interviewees identified as problematic.

#5: Make a desirable TOD project "pencil out"

A combination of the following strategies can reduce the cost for developers and help a TOD project "pencil out":

- a. Municipalities wanting to attract development around transit stations should make every effort to streamline the development process and allow developers to <u>build "by right"</u> if they comply with all the requirements of a transit overlay zone.
- b. Cities may consider exploring the idea of a "Global EIR" that will apply to all projects within the TOD overlay zone which comply with the requirements of the zone. This way, developers of projects within the TOD overlay zone will not have to carry the cost of individual EIRs for their projects.
- c. TODs provide opportunities for joint development agreements and cost-sharing projects (such as parking structures, public plazas, etc.). Cities should explore such options as ways to bring amenities to their jurisdiction while also helping a desirable TOD project "pencil out." Cities can also be helpful by underwriting the cost of environmental mitigation of contaminated sites and identifying empty or underutilized sites and converting them to developable lots.
- d. Cities should consider the use of development incentives, density bonuses, and reduced parking requirements, but these need to be considered carefully during the designation of the TOD overlay zone.

#6: Find the right balance between "carrots" and "sticks"

Development fees and other requirements can bring desirable amenities to a jurisdiction (e.g. open space) but if they prove too burdensome they may scare developers away. It is very important that cities constantly monitor the balance between incentives and requirements (the carrots and sticks of development) weighing the condition of the economy and other market forces, the development potential and desirability of the site for developers, as well as whether a developer owns the land or only has an option to it.

#7: Make affordable housing "pencil out"

It was very clear from our interviews that for-profit developers found the requirement of affordable housing provision extremely onerous. Cities have to play a very important role in making affordable housing "pencil out." They can do so by:

- a. Providing density bonuses to developers building affordable housing in the form of increased FAR and more allowable units.
- b. Streamlining the development process, reducing the cost of building permits and other fees, and allowing affordable housing developers to build "by right."
- c. Subsidizing the cost of development by paying for the provision of certain infrastructure or facilities (e.g. parking).
- d. Using in lieu fees provided by developers who choose not to build affordable housing to underwrite the cost of land for developers building affordable housing.

#8: Find a solution to the parking dilemma

Cities can follow a number of approaches to address the parking dilemma for TOD projects:

- a. Decouple parking from residential development; give residents the option of purchasing a unit with or without parking.
- b. Develop maximum parking standards for TODs.
- c. Investigate potential for shared parking with institutions that have adjacent parking structures and large surface parking lots that remain empty after business hours and during the night.
- d. Provide parking space to tenants in near-by parking structures; allow developers to satisfy parking requirements by leasing parking spaces in adjacent structures.

e. Make transit more appealing. Create better multimodal linkages between transit centers and neighboring areas. Cities and developers might also underwrite the cost of offering free weekend rail passes and monthly passes at reduced cost to incentivize ridership.

#9: Achieve better coordination among different public entities

Since the involvement of different public agencies and actors with different requirements, goals, expectations, and levels of authority frustrates TOD projects and stymies opportunities for regional thinking we recommend establishing a *Corridor Coordinating Council* as a Joint Powers Authority consisting of high-level representatives from all different public sector agencies involved in corridor development. This Council would help establish, in coordination with city planning departments, a corridor-level TOD vision and set goals that promote successful projects, understanding that development potential (land use mix and market strength) varies along the line. The Council would be authorized to oversee developments along the corridor as well as negotiate joint development agreements with private and nonprofit developers. Additionally, this body should have the authority to conduct district or corridor-level EIRs, initiate and carry out public hearings and community meetings to inform, educate, and listen to the concerns of the public. In this way, jurisdictions across the region could share costs while benefiting from the efficiencies of regional thinking and action.

Section 1. Gold Line Corridor Baseline Profile and Trends

This section provides a baseline profile and trends analysis of key socioeconomic, housing, job, employment, and development patterns of the Gold Line light rail corridor from Union Station in Los Angeles to its terminal station at Sierra Madre Villa to establish a baseline understanding of the opportunities for economic development along the line. Station areas are within immediate walking distance of stations, defined as one third to a half mile depending on the major roads and geographic features acting as boundaries.

1.1 Overview of the Gold Line

Inaugurated on July 6, 2003, the Gold Line is a 13.7-mile light rail line in the Los Angeles metro rail system. The line connects the cities of Pasadena and South Pasadena and the northeastern portion of Los Angeles to the Union Station transit hub on the northern edge of downtown Los Angeles (Figure 1.1). Operated by the Los Angeles County Metropolitan Authority (MTA), the line traverses a broad cross-section of neighborhoods as it passes through Chinatown, the diverse communities along the historic Arroyo Seco and 110 Freeway corridor, the affluent residential neighborhoods of South Pasadena, and Old Town Pasadena, and extends eastward along the 210 Freeway right-of-way to the end of the line at the Sierra Madre Villa Station.

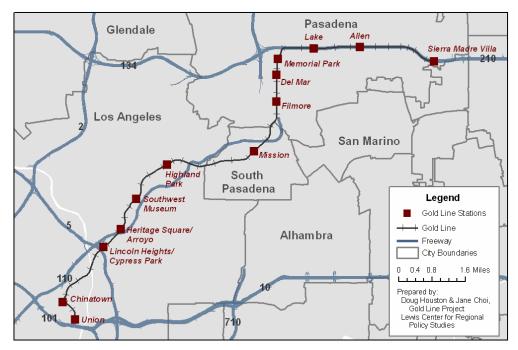


Figure 1.1 Gold Line Alignment

In 1980, Los Angeles County voters approved Proposition A, authorizing a half-cent sales tax increase to be used for a region-wide rail transit system. On July 16, 1990, the first leg of the Blue Line was completed, connecting downtown Long Beach to downtown Los Angeles. As originally conceived, the line would eventually continue on to Pasadena along an old Southern Pacific rail route.

By late 1997, the MTA, plagued by financial hardships, took the drastic measure of halting all new rail projects and concentrating their limited resources on finishing the languishing Red Line. This left the Pasadena Blue Line project in limbo until State Senator Adam Schiff was able to ensure legislative approval in mid-1998 to create the Pasadena Blue Line Construction Authority. This body, governed by a five-person board with representatives from the three cities the rail line would service, one member from the MTA, and one from the San Gabriel Valley Council of Governments, was given control over the Blue Line construction.

In November 2001, the project was renamed the Gold Line, officially formalizing what had long been true, that the line to Pasadena would never directly connect with the Blue Line to Long Beach. After a few further delays and cost overruns, the rail line finally opened in July 2003. According to the Pasadena Gold Line Construction Authority, the cost of building the Gold Line was \$800 million. This figure includes all planning and construction costs including labor, materials, and land acquisition, but not acquisition costs for the vehicle fleet. Press reports covering the opening of the Gold Line quoted a higher figure of \$859 million, or \$62.7 million per mile of track (NBC4 Television News).

According to figures by the Los Angeles County Metropolitan Authority, the Gold Line earns approximately \$280,000 per month in fares for a total of 3,360,000 annually. This represents about 8% of the Line's \$42 million in annual operating costs.

The most vigorous opposition to the Gold Line has come from South Pasadena, where residents from the beginning of the project expressed fears that their community would "become Los Angeles." Since the line opened, the primary complaints have been about noise from the trains, particularly at intersections, where operators are required to ring a warning bell. Perhaps the most vocal of the opponents has been David Margrave, a South Pasadena city councilman, business owner, and developer of a senior home near where the track crosses Monterey Rd. Margrave, who has called the Gold Line a "human rights violation," refused to give up his seat on the Gold Line Construction Authority to a representative from Azusa, defying his own city council in the process (*Star-News*, 10/3/2004). His ex-wife has filed suit several times claiming a property value loss from the development of the railway.

The MTA has started work on the Eastside extension of the Gold Line, a six-mile, eight-station continuation from Union Station, through a tunnel under Boyle Heights and then at grade out to Atlantic Avenue in East Los Angeles. Current plans also have the Gold Line running east (along the 210 Freeway) to Montclair by 2009.

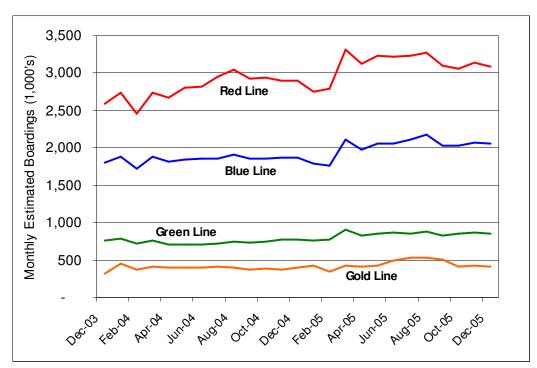
1.2 Ridership Patterns

More than 70,000 people crowded into the Gold Line cars on the inauguration day, nearly overwhelming a system designed to regularly carry less than half that amount. After the excitement died down, however, ridership has not yet come close to the levels predicted by transportation planners. Projections were for 38,000 weekday boardings by the end of 2005, but the line has on average about 15,000 passenger weekday boardings. Although Gold Line ridership topped 530,000 in August 2005, the estimated monthly boardings were about 410,000 by the end of 2005 (Figure 1.2).

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¹ Section 1.13 lists references used for this subsection.

According to data given to us my the Los Angeles County Metropolitan Authority, the Gold Line has substantially fewer riders than the Blue Line which has an average of about 2,064,000 monthly boardings or the Red Line connecting downtown Los Angeles to North Hollywood which has an average of about 3,085,000.

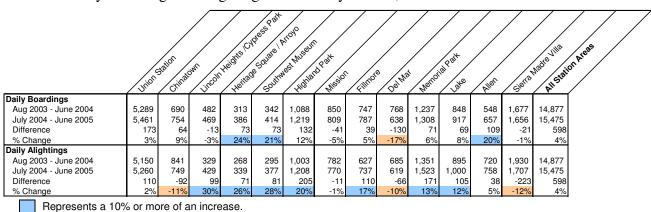


Source: Los Angeles County Metropolitan Authority

Figure 1.2 Estimated Monthly Ridership on Los Angeles Light Rail Stations

The Gold Line averaged over 14,800 riders per day between August 2003 and June 2004, and almost 15,500 riders per day between July 2004 and August 2005 (Table 1.1). Ridership in 2003-2004 may have been somewhat low because of the transit strike in mid 2003 and the time it took for the system to return to regular ridership levels.

Table 1.1 Daily Boarding and Alighting Estimates by Station, 2003-2005



Represents a 10% or more of a decrease.

Source: Los Angeles Metropolitan Transportation Authority Estimates

Caution should be used when interpreting station-level ridership counts since they are estimates and may not precisely represent actual ridership trends throughout the year given seasonal and daily fluctuations. They do, however, provide insights into overall trends. Union Station, an important regional transit hub, had the most boarding/alightings (over 5,000) of all Gold Line stations. The Sierra Madre Villa station, the terminal stop of the line, had over 1,600 boardings/alightings, Memorial Park near the Pasadena Senior Center had over 1,200, and Highland Park had over 1,000 boardings/alightings. The Heritage Square/Arroyo and Southwest Museums, the stations with the lowest boardings/alightings, had an over 20% increase from 2003 to 2005. Allen station in Pasadena also saw a rise of 20% in its boardings. In contrast, the Del Mar station had a decrease in boardings/alightings, perhaps in part due to the major construction activity around the station.

Methodology

Station-level ridership estimates were provided by the Los Angeles Metropolitan Transportation Authority (MTA) and were derived from a sampling of ridership throughout the year. Sample inperson counts were taken on a weekly basis at each station; weekly counts were rotated systematically by rail car to derive representative counts. Note that estimates from August 2003 – June 2004 exclude July 2003.

1.3 Demographic & Socioeconomic Characteristics and Trends of Station Areas

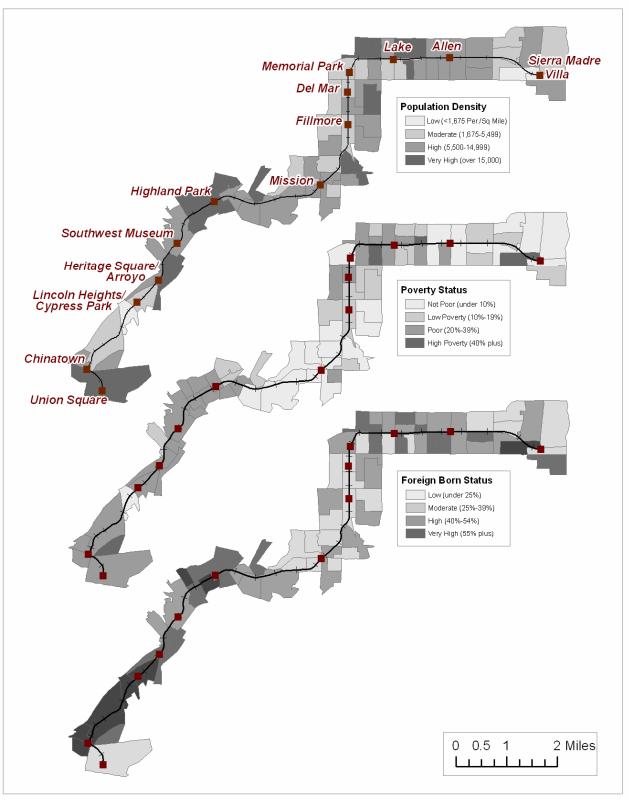
This section provides an overview of station areas based on 2000 decennial census data; then profiles changes in station area demographic, socioeconomic, and commute patterns using 1990 and 2000 decennial census data. Station areas were defined as being one third to a half mile radius from the station, depending on the major roads and geographic features acting as boundaries. We should note that the Gold Line started operation in July 2003. Therefore any changes in the socio-demographic profile of the areas that these census data may indicate cannot be directly attributed to the line.

Overview of Corridor Demographic and Socioeconomic Patterns, 2000

The communities along the Gold Line vary by demographic and socioeconomic characteristics from its terminal at Union Station to its final stop at Sierra Madre Villa. Tables 1.2 and 1.3 and Figures 1.3 and 1.4 profile the characteristics of station area based on 2000 decennial census data. The station areas with the highest population density include the Heritage Square/Arroyo and Highland Park stations in northeastern Los Angeles (over 17,000 persons per square mile). Los Angeles station areas tend to have a higher percentage of foreign born residents and households that are linguistically isolated. The Chinatown station area has the highest composition of seniors over 65 years of age (30%) and Asian/Pacific Islander residents (83%), while the other Los Angeles stations tend to be comprised of more children, more family households, and more Hispanic residents. With the exception of the Southwest Museum Station, station area communities in northeastern Los Angeles tend to have higher poverty rates (over 20%), more households receiving public assistance (over 10%), and a lower level of educational achievement.

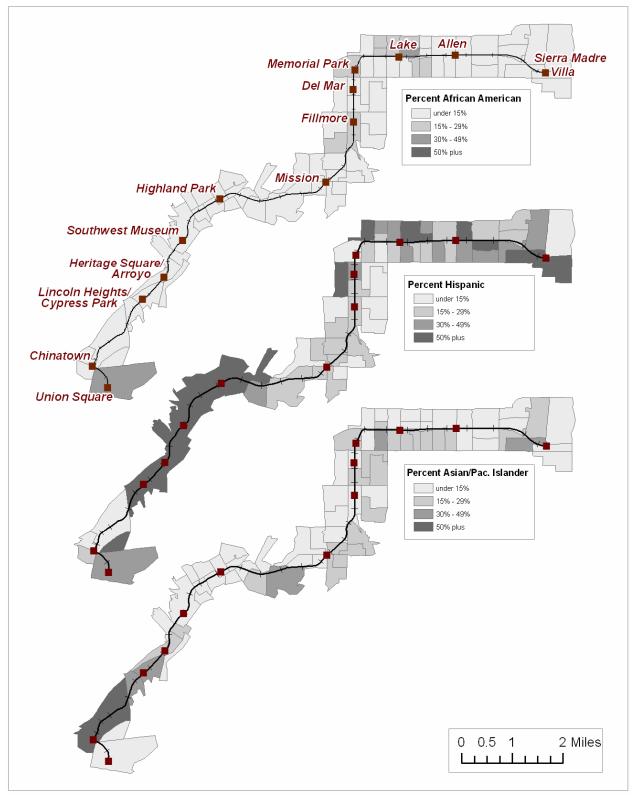
The lower residential densities near stations in South Pasadena and Pasadena are consistent with the more suburban character of these communities. The Mission station area in South Pasadena and the Fillmore, Del Mar, and Memorial Park station areas have a higher composition of single-person-households (over 50%) and tend to be more highly educated (over 50% have at least a Bachelor's degree). Station areas in South Pasadena and Pasadena generally have lower rates of poverty and public assistance compared to station areas in Los Angeles. African-Americans are more

highly represented in station areas in central Pasadena, with the highest concentrations in the Memorial Park and Lake station areas.



Source: 2000 Census Summary File 3 blockgroup data.

Figure 1.3 Gold Line Corridor Socioeconomic Characteristics



Source: 2000 Census Summary File 3 blockgroup data.

Figure 1.4 Gold Line Corridor Race/Ethnic Composition

Table 1.2 Selected Demographic Characteristics by Station Area, 1990 & 2000

	China	town	Lincoln l		Heritage		South		Highlar	nd Park	Mis	sion	Filln	nore
			Cypres		Arro	,	Mus							
Year	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Number of Blocks	43	41	46	66	31	38	23	24	47	44	56	62	35	30
Area Square Miles	0.31	0.31	0.43	0.43	0.28	0.27	0.38	0.35	0.33	0.34	0.29	0.29	0.38	0.38
Total Population	3,133	3,149	2,456	2,208	4,809	4,778	2,883	2,977	5,913	7,804	2,991	2,987	2,765	2,593
Growth 1990-2000		1%		-10%		-1%		3%		32%		0%		-6%
Density (Persons/Sq. Mile)	10,239	10,298	5,742	5,167	17,218	17,413	7,494	8,535	18,038	23,102	10,153	10,139	7,250	6,811
Growth 1990-2000		1%		-10%		1%		14%		28%		0%		-6%
Age														
% Age 0-5	6%	5%	14%	9%	14%	10%	11%	7%	14%	11%	7%	4%	7%	5%
% Age 6-17	11%	12%	20%	23%	20%	24%	13%	18%	17%	24%	11%	13%	6%	9%
% Age 18-64	57%	54%	59%	60%	60%	59%	66%	64%	61%	60%	66%	68%	72%	75%
% Age 65 and over	27%	30%	7%	9%	6%	7%	10%	11%	8%	5%	17%	16%	16%	11%
Race* (not directly comparable)														
% White	4%	5%	35%	23%	45%	31%	64%	48%	49%	36%	72%	66%	72%	60%
% Black	3%	1%	1%	0%	1%	1%	5%	5%	3%	3%	3%	5%	12%	11%
% API	87%	83%	36%	34%	19%	14%	13%	13%	14%	6%	16%	17%	9%	17%
% Other	7%	10%	28%	39%	35%	50%	18%	30%	35%	45%	9%	8%	7%	9%
% Multirace (2000 only)		2%		4%		4%		5%		9%		4%		4%
Hispanic Status														
% Hispanic	10%	13%	62%	64%	77%	83%	52%	59%	72%	83%	17%	22%	19%	21%
% Non-Hispanic White	1%	2%	2%	2%	4%	2%	31%	22%	13%	7%	64%	53%	61%	49%
Households														
Total Households	1,219	1,288	596	586	1,131	1,171	973	1,050	1,781	2,161	1,303	1,403	1,328	1,380
Growth 1990-2000		6%		-2%		4%		8%		21%		8%		4%
Population in Households	3,062	3,124	2,448	2,183	4,809	4,744	2,706	2,810	5,835	7,710	2,741	2,811	2,502	2,494
Persons per Household	2.5	2.4	4.1	3.7	4.3	4.1	2.8	2.7	3.3	3.6	2.1	2.0	1.9	1.8
Household/Person Distribution														
% HHs w/ 1 Person	39%	40%	13%	13%		11%	27%	28%	24%	16%	42%	45%	48%	51%
% Family HHs (w/ 2+ Per)	56%	56%	82%	84%	87%	85%	60%	62%	71%	77%	49%	44%	40%	39%
% Female-Headed Family HHs	3%	3%	11%	11%	12%	11%	7%	11%	12%	16%	7%	6%	4%	4%

Source: 2000 Census Summary File 1 block data and 1990 Census Summary File 1B block data

Represents a 5% or more of an increase.

Represents a 5% or more of a decrease.

^{*} Note: Area racial characteristics are not directly comparable between 1990 and 2000 due to significant differences in how racial data was collected by the census. Blocks for 1990 and 2000 cover a similar geographic area near stations. However, the geographic coverage does not correspond exactly since block boundaries changed between 1990 and 2000. See the appendix for maps of the 1990 and 2000 block boundaries used for this report.

Table 1.2 (Cont.) Selected Demographic Characteristics by Station Area, 1990 & 2000

	Del	Mar	Memori	al Park	La	ke	All	en	Sierra Vi			tation eas		ngeles untv
Year	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Number of Blocks	47	48	58	74	38	41	54	62	33	38	511	568	72,444	89.614
Area Square Miles	0.42	0.42	0.39	0.39	0.37	0.37	0.46	0.46	0.45	0.44	4.49		2607	2607
Total Population	3,067	2,798	505	1,201	4,466	4,381	3,587	3,793	1,181	1,095	37,756	39,764	8,863,164	9,519,338
Growth 1990-2000	0,007	-9%	000	138%	1, 100	-2%	0,007	6%	1,101	-7%	01,100	5%	0,000,101	7%
Density (Persons/Sq. Mile)	7,288	6,649	1,290	3,068	12,129	11,898	7,851	8,302	2,632	2,475	8,413	8,937	3,400	3,652
Growth 1990-2000	7,200	-9%	1,200	138%	12,120	-2%	7,001	6%	2,002	-6%	0,110	6%	0,100	7%
Age								- 7,5		0,70		0,0		. , .
% Age 0-5	5%	4%	8%	4%	10%	6%	9%	6%	12%	7%	10%	7%	11%	8%
% Age 6-17	6%	5%	6%	6%	10%	13%	12%	15%	15%	20%	13%	17%	15%	20%
% Age 18-64	72%	78%	76%	75%	65%	63%	70%	71%	63%	62%	64%	64%	64%	62%
% Age 65 and over	18%	14%	10%	16%	16%	18%	9%	8%	10%	11%	13%	12%	10%	10%
Race* (not directly comparable)														
% White	74%	62%	65%	53%	49%	48%	64%	54%	54%	50%	52%	43%	57%	49%
% Black	11%	10%	13%	18%	23%	17%	10%	9%	4%	3%	7%	6%	11%	10%
% API	7%	16%	5%	16%	9%	12%	11%	13%	15%	13%	20%	19%	11%	12%
% Other	8%	8%	18%	7%	19%	17%	16%	17%	28%	28%	20%	26%	21%	24%
% Multirace (2000 only)		4%		6%		6%		7%		7%		6%		5%
Hispanic Status														
% Hispanic	20%	20%	29%	18%	30%	35%	29%	34%	49%	55%	43%		38%	45%
% Non-Hispanic White	62%	51%	54%	44%	39%	33%	50%	39%	33%	25%	31%	24%	41%	31%
Households														
Total Households	1,558	1,662	260	812	1,967	1,990	1,452	1,490	378	338	13,946	15,331	2,989,552	3,133,774
Growth 1990-2000		7%		212%		1%		3%		-11%		10%		5%
Population in Households	2,746	2,616	434	1,156	4,297	4,091	3,565	3,735	1,165	1,059	36,310	38,533	8,691,099	9,344,086
Persons per Household	1.8	1.6	1.7	1.4	2.2	2.1	2.5	2.5	3.1	3.1	2.6	2.5	2.9	3.0
Household/Person Distribution														
% HHs w/ 1 Person	55%	61%	65%	73%	45%	51%	33%	32%	25%	23%	36%		25%	25%
% Family HHs (w/ 2+ Per)	33%	30%	25%	22%	44%	40%	57%	57%	70%	72%	55%		67%	68%
% Female-Headed Family HHs Source: 2000 Census Summary File 1 bloc	4%	2%	6%	4%	8%	6%	7%	6%	6%	6%	7%	7%	8%	8%

Source: 2000 Census Summary File 1 block data and 1990 Census Summary File 1B block data

Represents a 5% or more of an increase.

Represents a 5% or more of a decrease.

^{*} Note: Area racial characteristics are not directly comparable between 1990 and 2000 due to significant differences in how racial data was collected by the census. Blocks for 1990 and 2000 cover a similar geographic area near stations. However, the geographic coverage does not correspond exactly since block boundaries changed between 1990 and 2000. See the appendix for maps of the 1990 and 2000 block boundaries used for this report.

Table 1.3 Selected Socioeconomic, Housing, and Employment Characteristics by Station Area, 1990 & 2000

	China	town	Lincoln	Heights/	Heritage	Square/	South	nwest	Highlar	nd Park	Miss	sion	Fillm	nore
			Cypres	s Park	Arr	oyo	Mus	seum						
Year	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Number of Blockgroups	2	2	1	1	3	3	1	1	7	6	6	6	4	4
Area Square Miles	0.15	0.19	0.19	0.19	0.28	0.28	0.40	0.40	0.71	0.54	0.77	0.78	0.77	0.77
Socioeconomic Measures														
% Foreign Born Persons	79%	82%	66%	68%	61%	50%	39%	38%	56%	49%	17%	20%	15%	22%
% Recent Immigrant (of FB Pop)	62%	40%	44%	21%	50%	24%	46%	32%	60%	41%	32%	43%	32%	30%
% Persons in Poverty	20%	28%	42%	24%	27%	27%	25%	21%	19%	25%	7%	8%	5%	6%
Educational Attainment														
% Less Than High School	67%	66%	68%	68%	68%	65%	33%	36%	58%	58%	11%	8%	10%	7%
% High School / Some College	26%	27%	24%	25%	27%	30%	43%	43%	33%	32%	45%	43%	34%	27%
% Bachelors Degree or Higher	8%	7%	8%	7%	5%	5%	24%	21%	9%	10%	44%	49%	57%	66%
Housing Tenure & Vacancy														
% Vacancy	6%	4%	0%	8%	6%	4%	8%	6%	6%	5%	6%	4%	5%	4%
% Owner-Occupied HUs	2%	4%	27%	23%	31%	28%	47%	37%	26%	26%	33%	31%	49%	49%
% Renter-Occupied HUs	98%	96%	73%	77%	69%	72%	53%	63%	74%	74%	67%	69%	51%	51%
Labor Force and Employment														
Labor Force Participation Rate	43%	40%	63%	52%	63%	51%	67%	63%	67%	55%	69%	65%	70%	69%
% Unemployment	6%	15%	24%	7%	11%	10%	12%	11%	11%	11%	3%	5%	3%	5%

Table 1.3 (Cont.) Selected Socioeconomic, Housing, and Employment Characteristics by Station Area, 1990 & 2000

, ,	Del	Mar	Memori	al Park	La	ke	All	en	Sierra	Madre	All St	ation	Los Aı	ngeles
									Vi	lla	Are	eas	Cou	ınty
Year	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Number of Blockgroups	4	4	2	2	9	9	5	5	5	5	49	48	6,008	6,371
Area Square Miles	0.52	0.52	0.32	0.32	0.75	0.75	0.63	0.64	1.27	1.27	6.77	6.64	2,607	2,607
Socioeconomic Measures														
% Foreign Born Persons	26%	26%	28%	33%	32%	37%	35%	39%	39%	35%	38%	40%	33%	36%
% Recent Immigrant (of FB Pop)	71%	43%	76%	48%	64%	49%	44%	39%	33%	25%	53%	38%	53%	35%
% Persons in Poverty	14%	17%	33%	14%	18%	21%	11%	10%	10%	10%	18%	18%	15%	18%
Educational Attainment														
% Less Than High School	23%	14%	18%	15%	27%	23%	21%	17%	25%	25%	35%	31%	30%	30%
% High School / Some College	37%	32%	60%	35%	40%	41%	45%	46%	46%	43%	39%	37%	48%	45%
% Bachelors Degree or Higher	40%	54%	21%	50%	33%	36%	34%	36%	28%	32%	25%	32%	22%	25%
Housing Tenure & Vacancy														
% Vacancy	7%	7%	4%	10%	7%	4%	5%	4%	5%	5%	6%	5%	5%	4%
% Owner-Occupied HUs	13%	21%	5%	7%	11%	12%	42%	39%	73%	68%	30%	29%	48%	48%
% Renter-Occupied HUs	87%	79%	95%	93%	89%	88%	58%	61%	27%	32%	70%	71%	52%	52%
Labor Force and Employment														
Labor Force Participation Rate	66%	69%	62%	65%	67%	62%	68%	71%	69%	63%	58%	61%	67%	60%
% Unemployment	4%	10%	5%	7%	8%	9%	5%	9%	5%	5%	8%	9%	7%	8%

Source: 2000 Census Summary File 31 blockgroup data and 1990 Census Summary File 3 blockgroup data

Note: Blockgroup for 1990 and 2000 cover a similar geographic area near stations. However, the geographic coverage does not correspond exactly since blockgroup boundaries changed between 1990 and 2000. See the appendix for maps of the 1990 and 2000 blockgroup boundaries used for this report.

Represents a 5% or more of an increase.

Represents a 5% or more of a decrease.

Corridor Demographic and Socioeconomic Trends, 1990-2000

This subsection discusses changes in station area demographic and socioeconomic patterns of station areas using 1990 and 2000 decennial census data (Tables 1.2 and 1.3).

Population. While station areas have higher densities than the county as a whole, population density varies significantly from station to station, with the Highland Park station area (over 23,000 persons/square mile in 2000) being the most dense and Sierra Madre Villa being the least dense (just under 2,500 persons/square mile in 2000). Station areas near the Gold Line had an almost 5% growth rate between 1990 and 2000 compared to the county's 7% growth rate. Some station areas, however, had growth rates significantly higher than those of the county's. For example, Highland Park had a growth rate of over 30% from 1990 to 2000, and Memorial Park more than doubled its population, presumably due to the opening of the Holly Street Apartments in 1994 above the anticipated Gold Line station. On the other hand, the population of Fillmore and Del Mar stations in Pasadena declined about 6% and 9% respectively from 1990 to 2000. The Lincoln Heights/Cypress Park station area had a 10% decline in population.

Housing Density and Household Size. Household size and composition varied across station areas. Lincoln Heights/Cypress Park, Heritage Square/Arroyo, and Highland Park station areas in Los Angeles had high percentages of family households, which suggests the need for larger housing units in these neighborhoods to accommodate families. Conversely, the Del Mar, Memorial Park, and Lake station areas in Pasadena had an over 5% increase in single-person households. More than half of the households in these three stations in 2000 were single-family. This pattern suggests the need for smaller units in these station areas.

Age of Population. Age composition remained relatively stable from 1990 to 2000 in most stations with the exception of Lincoln Heights and Sierra Madre Villa station areas which saw a 5% drop in the 0-5 age category. On the other hand, the share of children from 6 to 17 years of age increased more than 5% in the Southwest, Highland Park, and Sierra Madre stations, while the share of elderly population saw an increase in the Memorial Park station. The elderly made an increasing share of the Chinatown station area and comprised almost one third of the residents in 2000.

Racial & Ethnic Composition. Changes in the racial composition of station areas are difficult to determine because there was a significant change in the way that racial data was collected by the census from the 1990 to the 2000 census. Questions regarding Hispanic status, however, are roughly comparable across years. Residents near the Gold Line became increasingly Hispanic between 1990 and 2000, a trend consistent with county level patterns. Heritage Square/Arroyo and Highland Park had the highest percentage of Hispanic residents (83%). These station areas along with the adjacent station areas of Highland Park and Mission had a 5% increase in Hispanic population. Similarly, the Lake, Allen, and Sierra Madre Villa stations on the eastern portion of the line also had a 5% increase in Hispanic population.

<u>Foreign-Born Population</u>. By 2000, foreign-born population comprised 40% of station areas, compared to 36% of the county as a whole (Table 3). The percent foreign-born population increased the most in the Fillmore, Del Mar, and Lake station areas of Pasadena. As with the county, the percentage of foreign-born residents who were recent immigrants (in the previous 10 years) declined significantly.

<u>Poverty Rate</u>. While on average the poverty rate for all station areas stayed at about 18% from 1990 to 2000, the Chinatown and Highland Park station areas became increasingly poor. The poverty rate in Lincoln Heights/Cypress Park and Memorial Park decreased significantly (note that Memorial Park experienced the occupation of Holly Street Apartments between 1990 and 2000). This may denote a gentrification trend in the area.

Educational Attainment. Station areas in South Pasadena and Western Pasadena experienced a sizeable increase in the percentage of persons with a Bachelor's degree or higher, which helped increase the percentage of those with a Bachelor's degree or higher for the entire line to 32%, which is much higher than the 25% for the county. Station areas in the city of Los Angeles had a much lower educational attainment with more than half of their residents having less than a high school education. The Southwest Museum station area represents an exception, since just over a third of its population does not have a high school education.

Owner Occupancy. Home-ownership rates varied across the line with most stations having significantly lower home-ownership rates than those of the county's (48%). Only one station, the Sierra Madre Villa Station, had homeownership rates significantly higher than that of the county's and even in this station homeownership levels decreased from 1990 (73%) to 2000 (68%). Similarly homeownership rates decreased over 5% in the Lincoln Heights/Cypress Park and Southwest Museum station areas, and only increased significantly from 13% to 21% in the Del Mar station area.

<u>Labor Force Participation</u>. The labor force participation rate represents the percentage of working age persons (18-64) who are employed or looking for work. The overall labor force participation rate declined in the county between 1990 and 2000, a trend which could be partially due to the fluctuations in the labor market at the time of each decennial census. Although most station areas experienced some decline in this rate, increases occurred in the Fillmore, Del Mar, Memorial Park, and Allen station areas. Among those in the labor force, unemployment increased the most in the Chinatown and Del Mar station areas, and declined the most in the Lincoln Heights/Cypress Park station areas.

Methodology

Demographic characteristics for station areas (Table 1.2) are derived from block-level data based on 1990 and 2000 Summary File 1 census data which are derived from the 100% "long-form" population count. Socioeconomic, housing, employment, and commute characteristics for station areas (Table 1.3) are derived from blockgroup-level data based on 1990 and 2000 Summary File 3 census data which are based on the "short-form" population sample which includes approximately one out of every six households. Blockgroups are the smallest geographic level of aggregation at which the census releases socioeconomic, income, and commute data and are comprised of about 6-8 blocks. The block and blockgroup 1990 and 2000 station area designations used for this report cover similar geographic areas near stations. However, in some cases the geographic coverage does not correspond exactly since blockgroup boundaries changed between 1990 and 2000. Also, blockgroups often cover a larger geographic area than the blocks used to define a station area.²

² See Appendix A for maps of the 1990 and 2000 block and blockgroup boundaries used for this report.

1.4 Housing Patterns of Station Areas

The housing density varies across the Gold Line station areas, with the highest levels found near the Chinatown, Highland Park and Lake stations (Tables 1.4). Housing density is the lowest at Lincoln Heights station area in Los Angeles (about 788 units per square mile) and at Sierra Madre Villa station area in eastern Pasadena (about 1,391 units per square mile). In general, rental housing dominates the Gold Line corridor, comprising seventy percent of the housing stock compared to about fifty percent in the Los Angeles County. The Sierra Madre Villa station area has the highest proportion of owner-occupied housing (68%) followed by the Fillmore station (49%). The Chinatown, Memorial Park and Lake stations have relatively few owner-occupied units.

Although census data on the age of structures is based on residents' estimates of the year their residential structure was built, results provide a general profile of the potential age of the housing stock in station areas. Structures in the Los Angeles station areas tend to be relatively older, with the exception of Chinatown which has a high representation of structures built between 1980-1994. Memorial Park has the highest composition of structures built between 1995-2000.

Table 1.4 Selected Housing Characteristics by Station, 2000

	Chirator	yr Inghri	Heiftede Heiftede	Soulde Arc	yo st Museum highere	, Path Meson	Filmare	Da Mad	Menorie	20th 20th	Ailer	Gerra M	All State	on Areas	Contra
Housing Units Housing Units per Square Mile	6,356	788	4,421	3,299	6,339	3,047	3,009	3,554	2,689	6,248	3,558	1,391	3,533	805	
Tenure & Vacancy	0,000	700	7,721	0,200	0,000	0,047	0,000	0,004	2,000	0,240	0,000	1,001	0,000	000	
% Vacancy	4%	8%	4%	6%	5%	4%	4%	7%	10%	4%	4%	5%	5%	4%	
% Owner-Occupied HUs	4%					31%			7%						
% Renter-Occupied HUs	96%	77%	72%	63%	74%	69%	51%	79%	93%	88%	61%	32%	71%	52%	
Year Structure was Built															
% Built 1995-2000	0%	0%	1%	2%	1%	1%	2%	1%	33%	3%	2%	3%	3%	3%	
% Built 1980-1994	45%		8%	13%		8%	19%		18%		10%				
% Built 1960-1979	28%		33%				25%	36%	7%						
% Built before 1960	27%	76%	58%	60%	59%	66%	55%	35%	42%	39%	62%	75%	53%	47%	
Length of Residence											· ·				
% Moved to HU 1999-2000	38%					34%			39%						
% Moved to HU 1995-1998	18%	22%	21%	31%	27%	26%	31%	37%	45%	31%	29%	23%	29%	27%	

Source: Census Summary File 3 blockgroup data

1.5 Commute Patterns of Station Areas

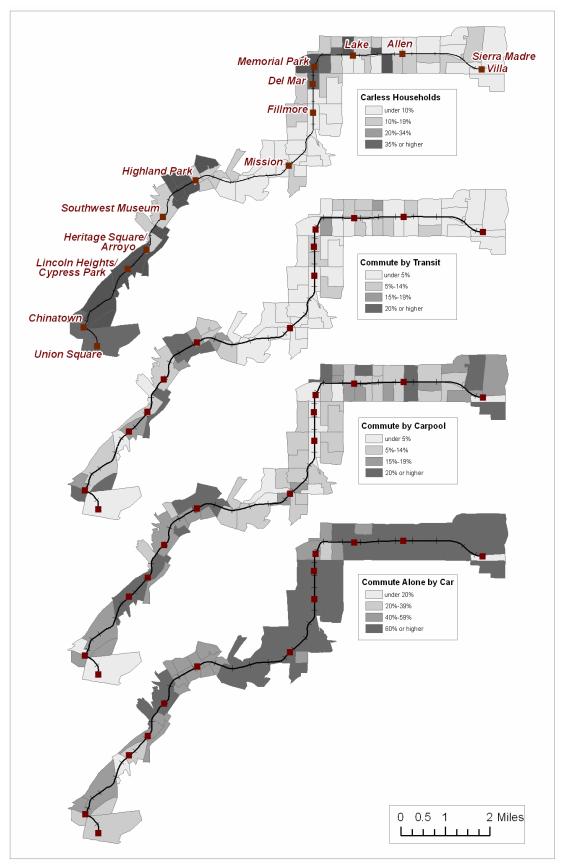
Overview of Commute Patterns, 2000

Available data from the 2000 census suggest that station areas have generally similar commuting patterns as those of the county average (Table 1.5). Among stations, however, working residents near South Pasadena and Pasadena stations tended to have a solo commute, whereas working residents near Los Angeles station areas tended to have higher rates of commuting in a carpool or by public transportation (Figure 1.5). Interestingly, the Chinatown and Lincoln Heights station areas in Los Angeles had higher rates of biking and walking, which could in part reflect that these areas had the highest rate of households without a car (67% and 34% respectively). Notably, the Memorial Park Station, which also had a relatively high rate of carless households (34%), had a relatively higher rate of biking or walking (34%). The Southwest Museum, Del Mar and Memorial Park stations had a higher rate of working from home.

Corridor Commute Patterns, 1990-2000

Commute Patterns. Station areas had a lower rate of solo driving for the journey to work than the rest of the county in 1990 and 2000, and a slightly higher rate of using public transit and biking or walking (Table 1.5). The Lincoln Heights/Cypress Park, Heritage Square/Arroyo, Southwest Museum, and Highland Park station areas had a decrease in the percentage of commuters who drove alone from 1990 to 2000. Of these, the Lincoln Heights/Cypress Park and Heritage Square/Arroyo areas had an increase in carpooling commuters and the Lincoln Heights/Cypress Park had an increase in commuters who used public transportation and biked or walked. The Fillmore, Del Mar, and Memorial Park station areas in Pasadena and the Chinatown station area in Los Angeles had an increase in the percentage of those who drove alone. The Chinatown station had a corresponding decrease in those who commuted using public transportation and those who biked or walked. The Del Mar, Memorial Park, and Lake station areas had a decrease in carpooling, and Memorial Park had a decrease in commutes by public transportation.

<u>Car Ownership</u>. The percentage of households without an available vehicle was higher in station areas than in the county (19% compared to 13% in 2000) (Table 1.5). Chinatown had the highest rate of households without a vehicle, although this percentage decreased from 72% to 67%. Memorial Park also had a sizeable decline. Areas near the Lincoln Heights/Cypress Park and Heritage Square/Arroyo stations and the Allen station had over a 5% increase in the percentage of households with a vehicle available.



Source: 2000 Census Summary File 3 blockgroup data.

Figure 1.5 Gold Line Corridor Vehicle Availability & Commute Mode Patterns

Table 1.5. Commute Characteristics by Station Area, 1990 & 2000

	Chinatown L		Lincoln	Heights/	Heritage	Square/	South	west	Highlar	nd Park	Miss	sion	Fillm	nore
			Cypres	s Park	Arr	oyo	Mus	eum						
Year	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Mode to Work														
% Auto Alone	20%	43%	61%	31%	55%	50%	69%	61%	56%	50%	78%	77%	77%	83%
% Auto Carpool	11%	9%	18%	25%	16%	25%	16%	17%	21%	24%	14%	11%	11%	8%
% Public Transportation	34%	21%	14%	20%	21%	15%	10%	14%	18%	21%	1%	0%	4%	3%
% Bike or Walk	33%	25%	0%	23%	5%	7%	2%	3%	4%	3%	1%	7%	4%	3%
% Motorcycle / Other	0%	2%	8%	0%	1%	0%	1%	1%	1%	1%	2%	0%	1%	0%
% Work at Home	2%	0%	0%	2%	1%	2%	2%	5%	1%	2%	4%	4%	3%	3%
Vehicle Availability														
% HH with no vehicle	72%	67%	15%	34%	18%	24%	14%	18%	21%	24%	3%	6%	7%	6%

Table 1.5 (Cont.). Commute Characteristics by Station Area, 1990 & 2000

	Del	Mar	Memori	al Park	La	ke	All	en	Sierra	Madre	All St	ation	Los Ar	ngeles
									Vil	lla	Are	eas	Cou	ınty
Year	1990 2000		1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Mode to Work														
% Auto Alone	65%	78%	25%	49%	63%	64%	68%	72%	70%	72%	64%	65%	70%	70%
% Auto Carpool	12%	6%	11%	6%	19%	14%	17%	18%	14%	20%	16%	16%	16%	15%
% Public Transportation	4%	4%	30%	6%	4%	7%	5%	4%	6%	2%	10%	8%	6%	7%
% Bike or Walk	14%	5%	30%	34%	10%	11%	7%	4%	6%	3%	7%	7%	4%	4%
% Motorcycle / Other	3%	0%	0%	0%	1%	1%	1%	0%	1%	0%	1%	1%	1%	1%
% Work at Home	3%	6%	5%	5%	2%	3%	2%	2%	4%	2%	2%	3%	3%	3%
Vehicle Availability														
% HH with no vehicle	15%	18%	57%	34%	20%	20%	8%	13%	6%	7%	17%	19%	11%	13%

Source: 2000 Census Summary File 31 blockgroup data and 1990 Census Summary File 3 blockgroup data

Note: Blockgroup for 1990 and 2000 cover a similar geographic area near stations. However, the geographic coverage does not correspond exactly since blockgroup boundaries changed between 1990 and 2000. See the appendix for maps of the 1990 and 2000 blockgroup boundaries used for this report.

Represents a 5% or more of an increase.

Represents a 5% or more of a decrease.

1.6 Jobs & Economic Base of Station Areas

This section profiles employment patterns by industry near station areas in two time periods, 2000 and 2005. Data for 2000 are derived from Dun & Bradstreet and data for 2005 are derived from the Employment Development Division (EDD). Since these data are not directly comparable, we do not report job patterns in terms of trends or change over time. The methodology section below describes the reason why the data are not directly comparable.

2000 Employment Patterns: Dun & Bradstreet Data

Based on EDD data for 2000, Gold Line station areas were the location of approximately 131,000 jobs in 2000, with the highest job concentrations in the Union Station and Chinatown station areas close to downtown Los Angeles and the Del Mar, Memorial Park and Lake station areas in central Pasadena (Figure 1.6 & Table 1.6). Similar to the county, the largest job sector along the Gold Line Corridor was the service sector which comprised forty-four percent of all jobs. The largest concentration of service jobs was near the Southwest Museum Station in Los Angeles and the Fillmore Station in Pasadena. Retail jobs comprised 21% of corridor jobs and were concentrated near the Memorial Park and Sierra Madre Villa stations in Pasadena. The finance, insurance and real estate (FIRE) sector accounted for ten percent of corridor jobs and was heavily concentrated in Pasadena near the Del Mar and Lake stations. Jobs in transportation, communication, and utilities (9% of corridor jobs) were clustered near the regional transportation hub of Union Station.

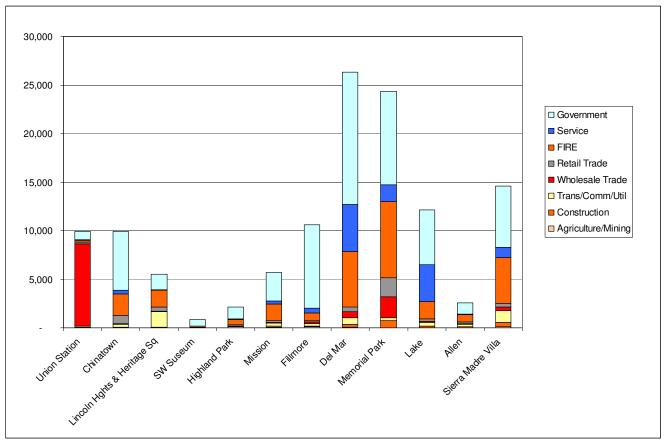


Figure 1.6 Total Employment by Station Area, Dun & Bradstreet Data, 2000

Source: 2000 Dun & Bradstreet Jobs tract-level counts.

Note: Based on 2000 tract boundaries. The Lincoln Heights/Cypress Park and the heritage Square/Arroyo stations have been combined given overlapping tract boundaries

Table 1.6 Employment Patterns, Dun & Bradstreet, 2000

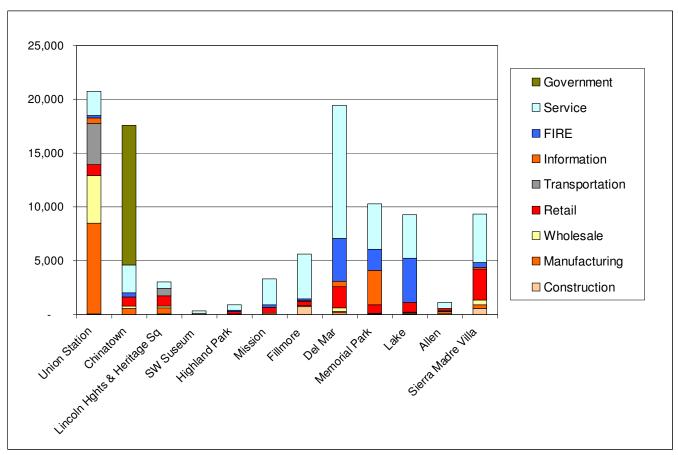
	Union	Chinatown	incoln Heights	Southwest	Highland Park	Mission	Fillmore	Del Mar	Memorial Park	Lake	Allen	Sierra Madre	All Station	Los Angeles
	Station		Heritage Squar	Museum								Villa	Areas	County
Area (Square Miles)	0.6	0.4	0.9	0.9	0.7	1.8	2.0	1.4	0.7	0.9	0.6	2.6	13.4	4,060.9
Employment Density (per Sq Mile)	17,163	10,972	5,713	857	2,163	6,104	10,631	26,934	25,982	13,565	2,579	14,681	131,118	4,916,973
Employment														
Total	10,937	0	0	0	0	0	0	0	0	0	0	0	0	0
% Agriculture/Mining	0%	0%		1%		1%	1%	0%	0%	0%	1%	1%	0%	1%
% Construction	0%	0%		2%	1%	2%	1%	1%	3%	1%	5%	3%	2%	3%
% Trans/Comm/Util	1%	3%	27%	2%	5%	5%	2%	3%	1%	3%	8%	8%	4%	15%
% Wholesale Trade	77%	1%		0%	2%	1%	1%	2%	8%	1%	5%	3%	9%	6%
% Retail Trade	2%	8%	8%	1%		3%	1%	2%	8%	2%	6%	2%	4%	8%
% FIRE	2%	20%	31%	16%	25%	28%	7%	21%	30%	13%	28%	32%	21%	15%
% Service	1%	4%	1%	1%	5%	5%	5%	18%	7%	28%	3%	7%	10%	7%
% Government	8%	55%	28%	76%	55%	48%	81%	50%	37%	41%	45%	43%	44%	41%
Employment														
Total	10,937	10,972	5,713	857	2,163	6,104	10,631	26,934	25,982	13,565	2,579	14,681	131,118	4,916,973
Agriculture/Mining	5	17	40	12	5	60	99	40	7	23	26	152	486	31,201
Construction	33	19	48	17	25	107	85	322	716	174	118	408	2,072	158,215
Trans/Comm/Util	129	336	1,551	20	114	323	257	695	319	343	196	1,219	5,502	730,410
Wholesale Trade	8,454	62	50	2	40	58	142	569	2,149	116	117	396	12,155	282,359
Retail Trade	195	844	434	5	105	176	130	500	1,981	265	146	354	5,135	391,019
FIRE	177	2,190	1,772	137	542	1,707	792	5,747	7,844	1,768	723	4,719	28,118	744,784
Service	84	415	33	10	113	332	540	4,843	1,698	3,829	70	1,057	13,024	339,162
Government	856	6,053	1,587	653	1,184	2,934	8,566	13,579	9,660	5,599	1,167	6,286	58,124	2,019,493

Source: 2000 Dun & Bradstreet Jobs tract-level counts.

Note: Based on 2000 tract boundaries. The Lincoln Heights/Cypress Park and the heritage Square/Arroyo stations have been combined given overlapping tract boundaries

Based on EDD data for 2005, Gold Line station areas were the location of nearly 101,000 jobs, with the highest job number of jobs located near the Union Station and Chinatown station areas close to downtown Los Angeles and the Del Mar station areas in central Pasadena (Figure 1.7 and Table 1.7). The Memorial Park, Lake and Sierra Madre stations in Pasadena have sizeable numbers of nearby jobs.

Similar to the county, the largest job sector along the Gold Line Corridor was the service sector which comprised 38% percent of all jobs (compared to 49% at the county level). The largest concentration of service jobs was near the Del Mar Station in Pasadena; concentrations of service sector jobs were also relatively high near the Fillmore, Lake, Memorial Park, and Sierra Madre Villa stations. Approximately 11% of jobs along the Gold Line were retail, with the largest concentrations at Del Mar and Sierra Madre Villa. Approximately 10% of jobs in the corridor were in manufacturing and the majority of these jobs were located near Union Station. The finance, insurance and real estate (FIRE) sector accounted for 12% of corridor jobs compared to 6% of county jobs outside the corridor. Jobs in FIRE were heavily concentrated in Pasadena near the Del Mar and Lake stations. Jobs in transportation and wholesale were clustered near the regional transportation hub of Union Station. The Chinatown station area had the largest number of government jobs.



Note: Based on 1990 tract boundaries. The Lincoln Heights/Cypress Park and the heritage Square/Arroyo stations have been combined given overlapping tract boundaries.

 $Source: \textit{California Employment Development Division tract-level data, 2005, obtained from the Southern \textit{California Association of Governments}. \\$

Figure 1.7 Total Employment by Station Area, EDD Data, 2005

Table 1.7 Employment Patterns, EDD, 2005

	Union Station	Chinatown	Linc. Hghts & Herit. Square	Southwest Museum	Highland Park	Mission	Fillmore	Del Mar	Memorial Park	Lake	Allen	Sierra Madre Villa	All Station Areas	Remainder of LA County
Total Tracts	Station	1	nerii. Square	Museum 1	3	2	2	2	Park 1	2	1	VIIIa 3	Areas 21	1.610
Area (Square Miles)	2	Ö	1	1	1	2	2	1	1	1	i i	3	16	3,351
Firm Density (per Sq Mile)	315	1,142	157	52	111	175	228	821	645	524	191	184	318	58
Employment Density (per Sq Mile)	8.460	44,928	3,560	394	886	1.895	2.841	13,840	15,536	9.942	1.770	3,615	6.505	1.020
Employment	0,100	11,020	0,000	001	000	1,000	2,011	10,010	10,000	0,012	1,770	0,010	0,000	1,020
Total	20,739	17,581	3,019	348	886	3,333	5,613	19,435	10,304	9,290	1,124	9,319	100,992	3,419,211
% Agriculture	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%
% Mining	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%
% Utilities	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%
% Construction	0%	0%	1%	24%	0%	1%	13%	1%	0%	1%	8%	6%	2%	4%
% Manufacturing	41%	3%	20%	0%	4%	0%	2%	0%	0%	1%	19%	4%	10%	12%
% Wholesale	21%	2%	6%	0%	0%	2%	0%	2%	0%	1%	2%	5%	6%	6%
% Retail	5%	5%	30%	0%	30%	17%	7%	10%	8%	10%	19%	31%	11%	12%
% Transportation	18%	0%	22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	4%
% Information	2%	0%	0%	0%	0%	1%	1%	3%	31%	0%	0%	2%	4%	5%
% FIRE	1%	2%	1%	3%	9%	6%	3%	21%	19%	44%	2%	5%	12%	6%
% Service	11%	15%	20%	73%	56%	73%	74%	64%	41%	44%	50%	48%	38%	49%
% Government	0%	74%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%	3%
Employment														
Total	20,739	17,581	3,019	348	886	3,333	5,613	19,435	10,304	9,290	1,124	9,319	100,992	3,419,211
Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	1,170
Mining	-	-	-	-	-	-	-	-	-	-	-	-	-	107
Utilities	-	-	-	-	-	-	-	-	-	-	-	-	-	5,171
Construction	50	-	29	85	-	22	741	192	35	64	87	566	1,871	127,136
Manufacturing	8,445	539	601	-	39	-	91	66	43	96	217	334	10,470	410,693
Wholesale	4,439	275	179	-	-	74	15	351	27	72	23	425	5,879	193,547
Retail	1,016	798	911	-	268	569	379	1,951	817	888	217	2,885	10,699	399,388
Transportation	3,820	-	672	-	-	-	-	-	-	-	-	-	4,492	128,215
Information	505	-	-	-	-	23	49	511	3,185	29	-	149	4,451	154,025
FIRE	234	400	18	9	83	214	181	3,998	1,958	4,048	23	454	11,621	220,205
Service	2,230	2,577	609	254	497	2,431	4,156	12,367	4,239	4,095	559	4,505	38,518	1,686,094
Government	-	12,992	-	-	-	-	-	-	-	-	-	-	12,992	93,460

Note: Based on 1990 tract boundaries. The Lincoln Heights/Cypress Park and the heritage Square/Arroyo stations have been combined given overlapping tract boundaries. Source: California Employment Development Division tract-level data, 2005, obtained from the Southern California Association of Governments.

Methodology

Data for 2000 are derived from Dun & Bradstreet and data for 2005 are derived from the Employment Development Division (EDD). These sources are not directly comparable for numerous reasons including:

- (a) The source of the data EDD data are based on employment records reported by firms to the state of California, employment information for workers in the unemployment insurance (UI) program, approximately 95% of all private sector workers. Dun & Bradstreet are based on a rotating sample of firm interviews.
- (b) The classification of jobs by industry EDD data classify jobs by sector based on (North American Industry Classification System) industry codes. Dun & Bradstreet classify jobs by Standard Industry Codes (SICs). While these classifications are similar, they are not directly comparable.
- (c) The assignment of jobs to tract-level areas Methods to assign firms and associated employment geographically to census tracts are complicated, and may vary across data sets. For instance, the business address (used for tract assignment) of branches of large firms in EDD data reflect a central facility location rather than a branch location. For this reasons, tract-level counts can vary especially for large firms or public agencies.

Data were associated with stations based on tract boundaries. Dun & Bradstreet data were mapped based on 2000 tract boundaries while EDD data were mapped based on 1990 tract boundaries. The difference in these tract boundaries was not substantial for most station areas, with the exception of the Union Station area, which was substantially larger in 1990.

1.7 Land Use Characteristics and Trends of Station Areas

The distribution of existing land use along the Gold Line varies substantially across stations (Figure 1.8). The predominant land uses of the line are residential and commercial. Unlike the rest of the line, the Union Station area had no residential uses in 2005, and was dominated by government offices and other uses including bus terminals, correctional institutions and transportation facilities. The Chinatown station area had a relatively small proportion of residential uses and sizeable commercial land uses while Lincoln Heights had a small percentage of residential uses with sizeable industrial uses. Station areas along the central portion of the line from Heritage Square/Arroyo north to the Mission station area were predominantly residential (over 50%), as were the Lake and Allen station areas on the eastern end of the line. The Fillmore, Del Mar, and Sierra Madre Villa stations had the highest mix of residential and commercial uses, and the Memorial Park had a low level of residential uses and the highest percentage of commercial uses (over 50%).

Station areas as a whole averaged a 3% change in existing land use type from 2000-2005 (Figure 1.8). Note that the analysis of land use change does not include development activity on smaller parcels or development that does not change the overall land use type. About 4% of the area near Union Station was under construction for the Axis residential development (Figure 1.9). The Chinatown had the highest percentage of land use change from 2000-2005 (just over 9%), which was spread over numerous land use types and locations, including properties along Alameda Street (Figure 1.9). Over 4% of the Lincoln Heights/Cypress Park station area was under construction (Figure 1.10). This includes the residential developments of Puerto Del Sol Condos, Camino Al Oro Apartments, and Tesoro Del Valle Apartments. Land use changes near the Heritage Square/Arroyo and Highland Park stations occurred in the rail corridor immediately adjacent to the station (Figure 1.11 & 1.12). The Southwest Museum and Mission station areas did not have any changes in existing land uses based on SCAG data (Figure 1.11 & 1.12).

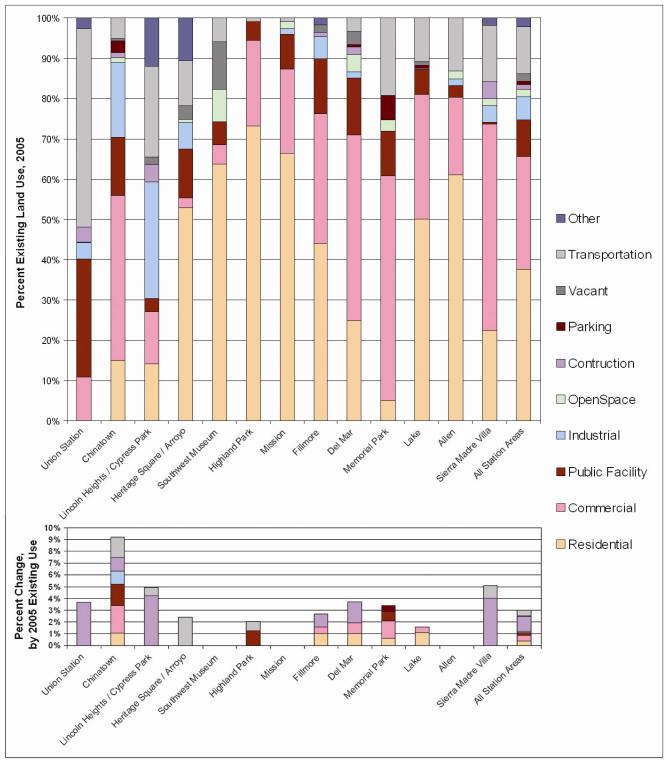
The 4% land use changes near the Fillmore station included conversions to commercial and residential uses and the construction site for the addition to the Huntington Hospital (Figure 1.13). About 1.8% of the Del Mar station area immediately adjacent to the station was under construction for a mixed-use development, while another 1% of the station area acreage was converted to residential use between 2000-2005 (Figure 1.13). The Memorial Park station area, which is predominantly commercial, had about 1.4% of its acreage converted to commercial uses, and just under 1% converted to a government facility (Figure 1.14). The Lake station had relatively little change in existing land use (just over 1% change to residential use) whereas the Allen station had no change in its existing land use based on SCAG land use data (Figures 1.14 & 1.15). Over 4% of the Sierra Madre station area was under construction by 2005, partially due to the residential and parking development just north of the station and the Toyota dealership project east of the station (Figure 1.15).

Methodology

Data on the distribution of existing land uses for 2000 and 2005 was obtained from the Southern California Association of Governments (SCAG) and is based on aerial photography in the spring of 2000 and 2005. A consultant interpreted the imagery to produce an existing land use database in a GIS format, which is based on an Anderson IV land use classification system. The minimum mapping unit for the database is 2.5 acres with the exception of critical land uses, which must be mapped regardless of size. For example, a small convenience store located on the corner of a residential tract of land would not be identified unless it was 2.5 acres or larger. In this particular instance the store would be coded as residential. The critical land uses are Schools, Police and Fire Stations.

Land uses that are ambiguous or indiscernible are flagged for field survey. During the field survey process the consultant's staff conducted quality control by reviewing all polygons from the starting point to the actual location of the flagged polygon. This process also includes comparing differences in how each team codes the same polygon to assess the quality of the field survey team and the photo interpretation team.

Changes in land use in this report represent a change in the 4-digit land use code for a given GIS-based area between 2000 and 2005. These detailed 4-digit classifications are referred to in the analysis as the "detailed" description of existing land use. For summary purposes, some of the analysis combines these detailed classifications as larger "general" categories (residential, commercial, etc). Reclassifications of land use types in the rail right-of-way were excluded from the analysis except for areas immediately adjacent to a station.



Note: Changes in land use represent a change in the 4-digit land use code for a given GIS-based area between 2000 and 2005. Reclassifications of land use types in the rail right of way were generally excluded from the analysis. Source: Derived from Southern California Association of Governments existing land use data, 2000 & 2005.

Figure 1.8 2005 Existing Land Use & Changes in Land Use 2000-2005, by Station Area

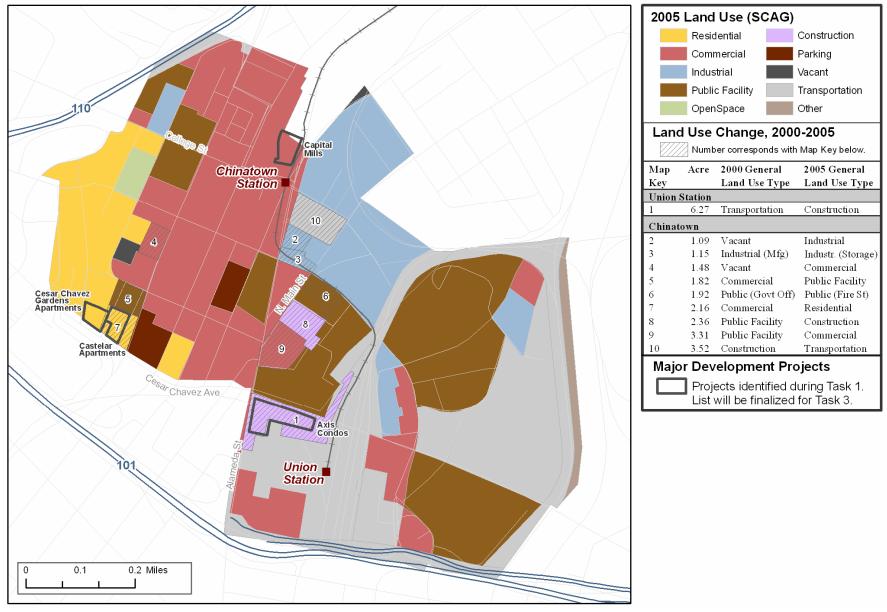


Figure 1.9 2005 Existing Land Use for the Union Station and Chinatown Station Areas, 2000-2005

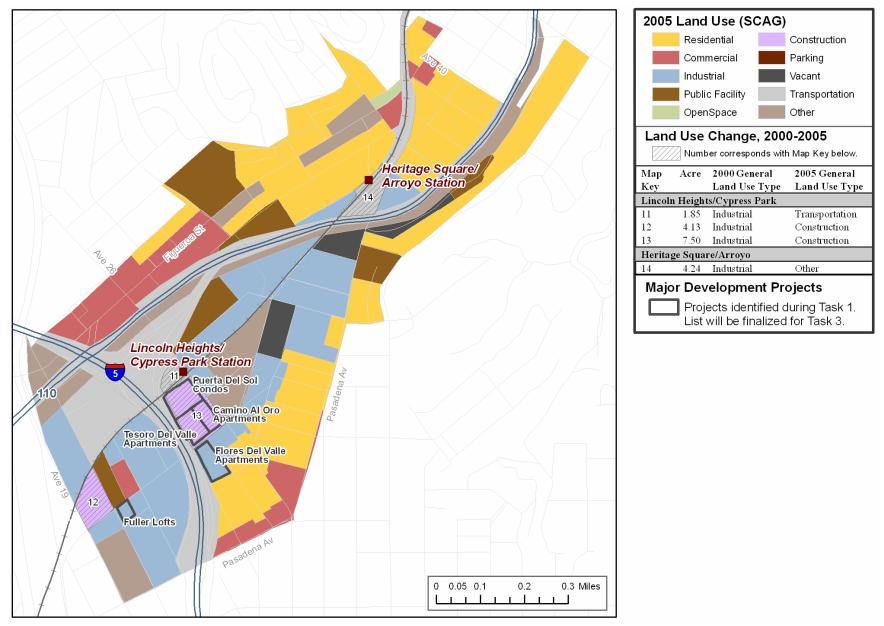


Figure 1.10 2005 Existing Land Use for the Lincoln Heights/Cypress Park & Heritage Square/Arroyo Station Areas, 2000-2005

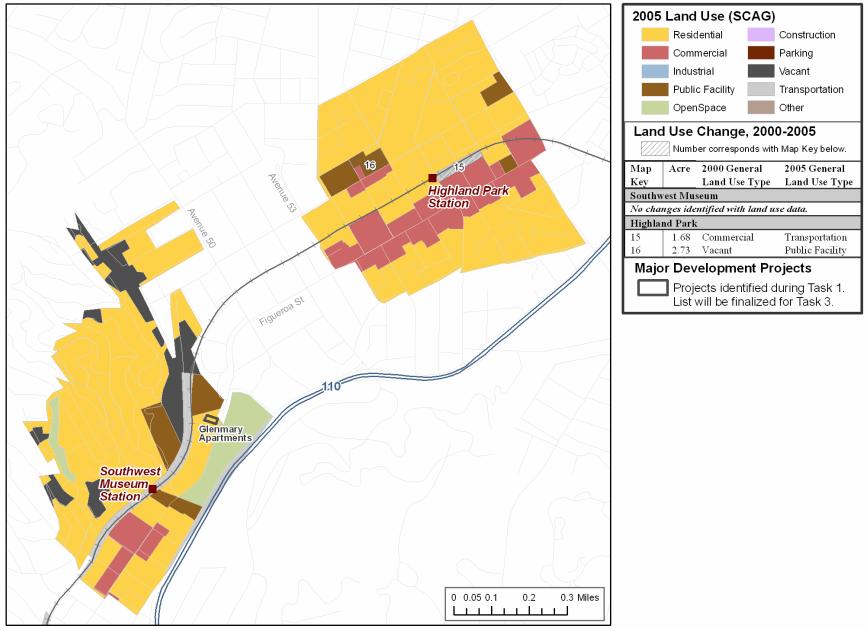


Figure 1.11 2005 Existing Land Use for the Southwest Museum & Highland Park Station Areas, 2000-2005

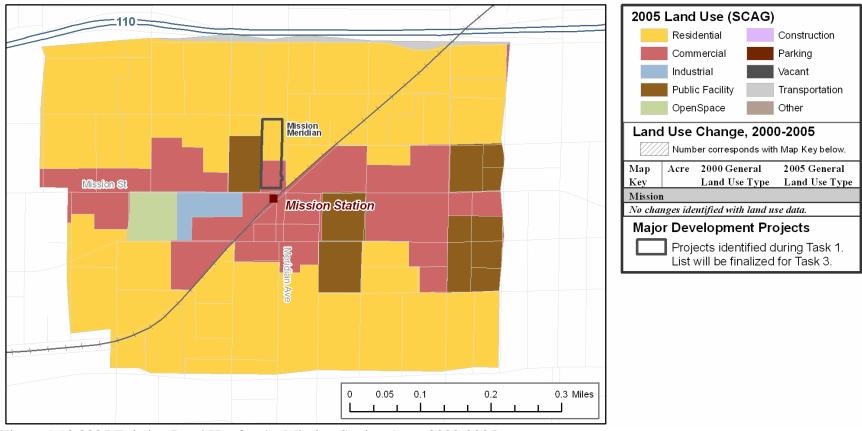


Figure 1.12 2005 Existing Land Use for the Mission Station Area, 2000-2005

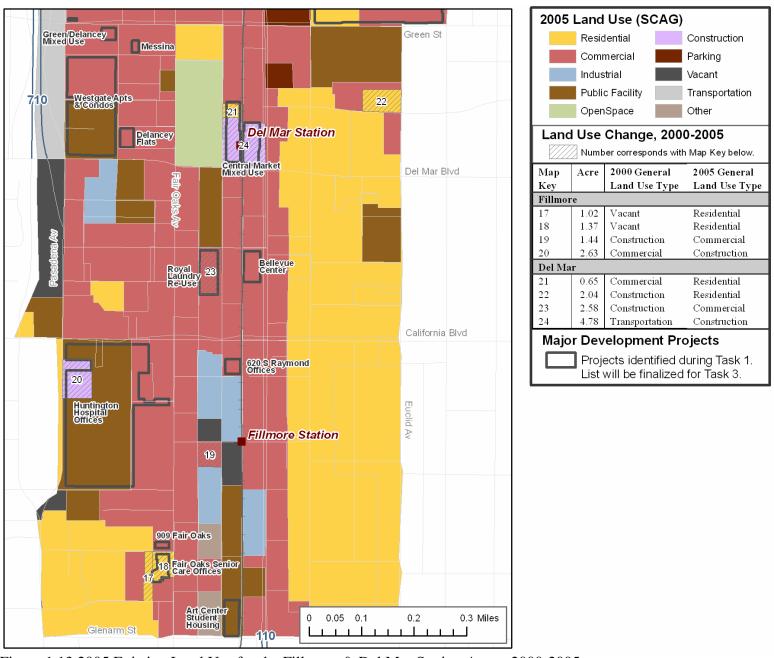


Figure 1.13 2005 Existing Land Use for the Fillmore & Del Mar Station Areas, 2000-2005

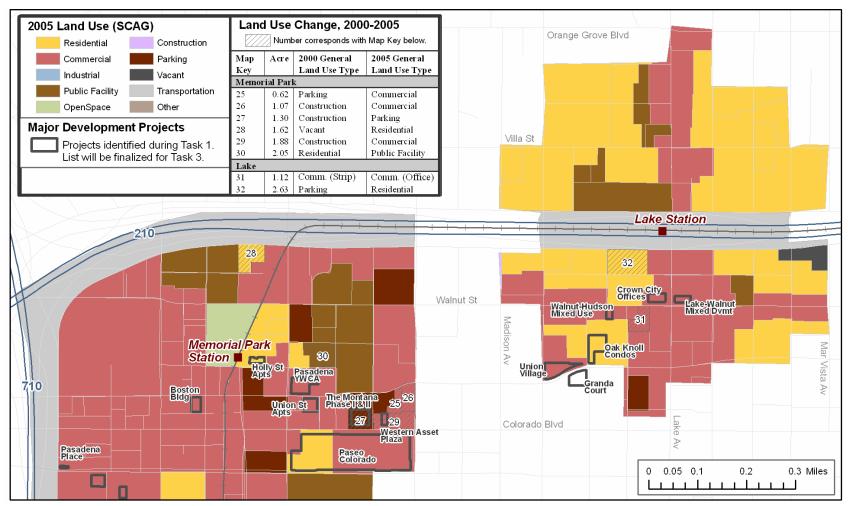


Figure 1.14 2005 Existing Land Use for the Memorial Park & Lake Station Areas, 2000-2005

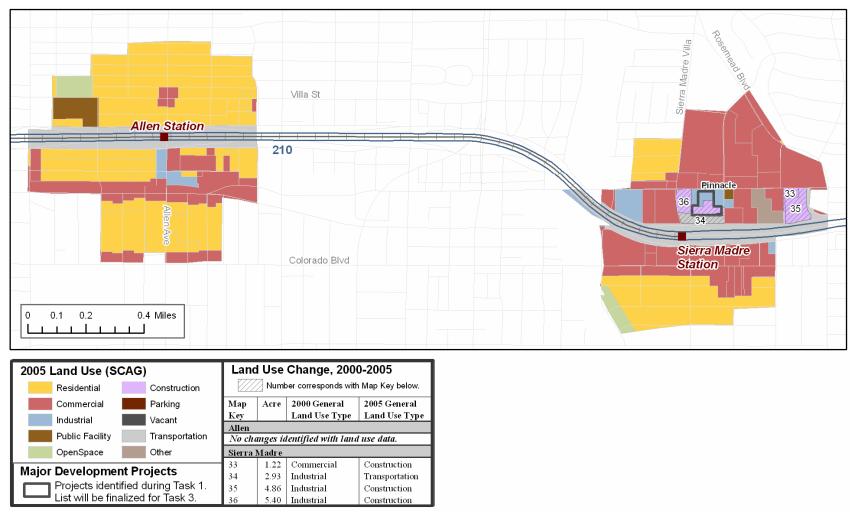


Figure 1.15 2005 Existing Land Use for the Allen & Sierra Madre Villa Station Areas, 2000-2005

Table 1.8 Detailed Land Use Changes, 2000-2005, by Station Area

Map	Acre	2001		2005						
Key		General	Detailed Description	General	Detailed Description					
Union	Station									
1	6.27	Transportation	Railroads	Construction	Under Construction					
Chinat	own									
2	1.09	Vacant	Vacant Undifferentiated	Industrial	Open Storage					
3	1.15	Industrial	Manufacturing, Assembly, and Industrial Services	Industrial	Open Storage					
4	1.48	Vacant	Vacant Undifferentiated	Commercial	Older Strip Development					
5	1.82	Commercial	Older Strip Development	Public Facility	Other Public Facilities					
6	1.92	Public Facility	Government Offices	Public Facility	Fire Stations					
7	2.16	Commercial	Older Strip Development	Residential	Medium-Rise Apartments and Condominiums					
8	2.36	Public Facility	Government Offices	Construction	Under Construction					
9	3.31	Public Facility	Government Offices	Commercial	Low- and Medium-Rise Major Office Use					
10	3.52	Construction	Under Construction	Transportation	Bus Terminals and Yards					
Lincoli	Heights/0	Cypress Park								
11	1.85	Industrial	Manufacturing, Assembly, and Industrial Services	Transportation	Railroads					
12	4.13	Industrial	Manufacturing, Assembly, and Industrial Services	Construction	Under Construction					
13	7.50	Industrial	Manufacturing, Assembly, and Industrial Services	Construction	Under Construction					
Heritag	ge Square/	Arroyo								
14	4.24	Industrial	Manufacturing, Assembly, and Industrial Services	Other	Mixed Transportation					
Southw	est Museu	ım								
No chai	nges identij	fied with land use	data.							
Highla	Highland Park									
15	1.68	Commercial	Older Strip Development	Transportation	Railroads					
16	2.73	Vacant	Vacant Undifferentiated	Public Facility	Elementary Schools					
Mission	1									
No cha	nges identij	fied with land use	data.							
Source	Darivad fro	m Southarn Calif	ornia Association of Governments existing land use data 20	00 & 2005						

Source: Derived from Southern California Association of Governments existing land use data, 2000 & 2005.

Table 1.8 (Cont.). Land Use Changes, 2000-2005, by Station Area

Map Key	Acre	2001 General		2005 General				
·		Description	Detailed Description	Description	Detailed Description			
Fillmon	e							
17	1.02	Vacant	Vacant Undifferentiated	Residential	Medium-Rise Apartments and Condominiums			
18	1.37	Vacant	Vacant Undifferentiated	Residential	Medium-Rise Apartments and Condominiums			
19	1.44	Construction	Under Construction	Commercial	Low- and Medium-Rise Major Office Use			
20	2.63	Commercial	Low- and Medium-Rise Major Office Use	Construction	Under Construction			
Del Ma	ır							
21	0.65	Commercial	Older Strip Development	Residential	Medium-Rise Apartments and Condominiums			
22	2.04	Construction	Under Construction	Residential	Medium-Rise Apartments and Condominiums			
23	2.58	Construction	Under Construction	Commercial	Modern Strip Development			
24	4.78	Transportation	Railroads	Construction	Under Construction			
Memor	ial Park							
25	0.62	Parking	Attended Pay Public Parking Facilities	Commercial	Older Strip Development			
26	1.07	Construction	Under Construction	Commercial	Older Strip Development			
27	1.30	Construction	Under Construction	Parking	Non-Attended Public Parking Facilities			
28	1.62	Vacant	Vacant Undifferentiated	Residential	Medium-Rise Apartments and Condominiums			
29	1.88	Construction	Under Construction	Commercial	Older Strip Development			
30	2.05	Residential	Medium-Rise Apartments and Condominiums	Public Facility	Government Offices			
Lake								
31	1.12	Commercial	Older Strip Development	Commercial	Low- and Medium-Rise Major Office Use			
32	2.63	Parking	Non-Attended Public Parking Facilities	Residential	Medium-Rise Apartments and Condominiums			
Allen								
No chai	nges identij	fied with land use	data.					
Sierra	Madre							
33	1.22	Commercial	Modern Strip Development	Construction	Under Construction			
34	2.93	Industrial	Manufacturing, Assembly, and Industrial Services	Transportation	Railroads			
35	4.86	Industrial	Research and Development	Construction	Under Construction			
36	5.40	Industrial	Manufacturing, Assembly, and Industrial Services	Construction	Under Construction			

Source: Derived from Southern California Association of Governments existing land use data, 2000 & 2005.

1.8 Development Activity: Building Permit and Property Sale Patterns

This section provides a general overview of development activity along the Gold Line corridor based on parcel tax assessor and building permit data for stations areas.

Property Sales Trends, 1996-2000 & 2000-2004

This subsection compares two perspectives on recent property sales. The first, based on 2000 tax assessor data, consists of the rate of property sales from 1996-2000. The second, based on 2004 tax assessor data, consists of the rate of property sales from 2000-2004. Although some properties likely sold more than once in these time periods, the analysis only considers the latest sale of properties. Analysis is restricted only to residential, commercial and industrial sales.

For station areas as a whole, about 23% of residential, commercial and industrial properties were sold at least once between 1996-2000 compared to 28% for 2000-2004 (Figure 1.16). This recent sale rate increased most dramatically in the Lincoln Heights and Highland Park station areas. The Lincoln Heights, Highland Park, Fillmore, and Memorial Park and Allen stations all had over 30% sales of these property types between 2000-2004. The only station area with a decline in recent sales was the Del Mar area.

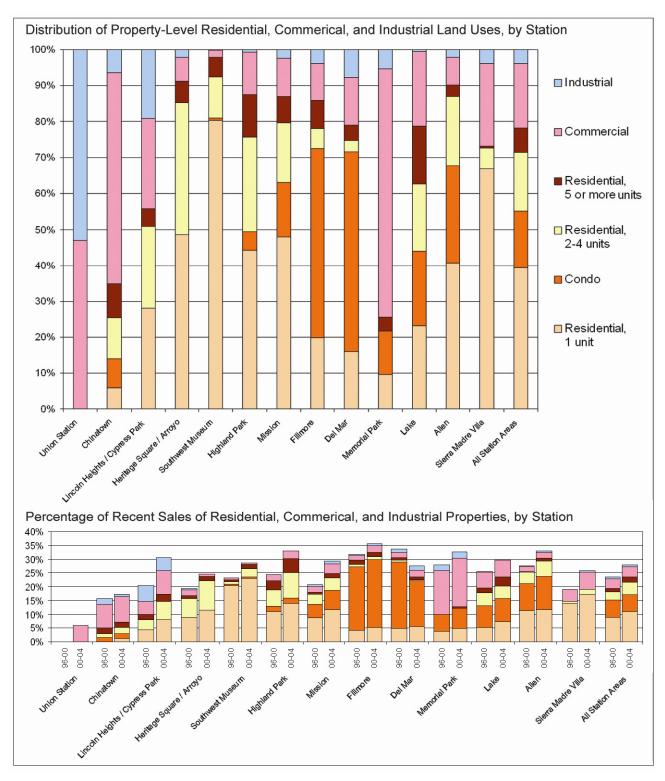
Across station areas, the variation of sales by use type largely corresponds to the distribution of land use types across the line. For instance, the Chinatown station area and the Memorial Park stations area had the highest percentage of commercial uses and also had the highest rate of recent sales of commercial properties. Likewise, the Fillmore and Del Mar stations had the highest percentage of condo properties, and the highest rate of sale of condo properties.

Methodology

This analysis examines the rate of recent property sales by land use type based on 2000 and 2004 tax assessor records. Tax assessor data for 2004 was obtained from Nobel Systems and tax assessor data for 2000 was obtained from DataQuick.

For each year, we examine the rate of property sales for the previous five years. That is, based on 2000 data, we examine the percentage of parcels sold between 1996 and 2000, and compare this to the percentage of parcels sold between 2000 and 2004 based on 2004 data. This analysis provides insights into the general level of market activity in each of these periods of time. Note that properties which were sold multiple times during the study periods were considered as one sale in the analysis.

The analysis includes 10,348 parcels that were not vacant in either 2000 or 2004 and had comparable data across both datasets. The analysis includes residential, commercial, or industrial properties and condos built before 2000 (to ensure comparable properties). Parcels with mobile homes were not included in the analysis.



Source: 2004 parcel-level tax assessor data obtained from Nobel Systems and 2000 data from DataQuick.

Figure 1.16 Recent Property Sale Patterns

Recent Building Permit Activity, 2000-2004

Building permits provide another perspective of the development activity in station areas. Trends in approved permits from 2000-2004 for stations in the Cities of Los Angeles and Pasadena³ suggest that the total number of permits in station areas rose from just over 200 in 2000 to about 400 in 2001 and 2002 (Figure 1.17). This number rose to about 440 permits in 2003 and 2004. The number of residential permits rose steadily in this period to about 225 in 2004 (Figure 1.18), while the number of commercial permits was above 200 from 2001-2004 (Figure 1.19). The total value of permits rose from about \$200,000 in 2000 to over \$1,000,000 in 2003, then back down to about \$800,000 in 2004 (Figure 1.20).

For the purpose of analysis we have grouped adjacent station areas because some stations had a very small number of permits for some years. We have grouped the Union Station, Chinatown, and Lincoln Heights station areas as "Southern Los Angeles Stations" and the Heritage Square, Southwest Museum, and Highland Park station areas as "Northern Los Angeles Stations". We have grouped the Fillmore, Del Mar, and Memorial Park station areas as "Western Pasadena Stations" and the Lake, Allen, and Sierra Madre station areas as "Eastern Pasadena Stations."

Southern Los Angeles stations had between 20-30 residential permits per year between 2000-2004 (Figure 1.18). The residential permits for these stations had the highest value in 2002 and 2004 (about \$4.7 million and \$21.2 million respectively). These include the 2002 permit for the Ceasar Chavez Gardens Apartments near the Chinatown station and the 2004 permits for the Castelar Apartments near the Chinatown station and the Camino al Oro Apartments, Puerta Del Sol Condos, and Tesoro Del Valle Apartments near the Lincoln Heights station. The value of commercial permits in the Southern Los Angeles Stations was highest in 2001 and 2004, largely due to sizeable development projects along Alameda Street (Figure 1.23).

Northern Los Angeles Stations had the highest number of residential permits in the study period, which rose from over 50 in 2005 to just under 150 in 2004 (Figure 1.18). Most of these residential permits, however, were valued at under \$250,000 except for two apartment complexes near the Highland Park station and the Glenmary Apartments near the Southwest Museum station. The Northern LA stations had the lowest commercial building activity, both in terms of the overall number and value of commercial permits (Figures 1.19 & 1.23).

Station areas in Western Pasadena had the lowest number of residential building permits between 2002-2004 (Figure 1.18) even if we consider mixed use permits, a classification only available for permits in Pasadena (Figure 1.20). The value of residential permits near Western Pasadena Stations was relatively moderate (Figure 1.22), but the value of mixed use developments accounted for about \$1.9 million in 2003 and \$12.2 million in 2004 (Figure 1.24). Mixed use development activity near the Del Mar and Memorial Park stations includes the developments along South Raymond Avenue and the Boston Building and the Pasadena Place developments. Mixed use developments since 2004 are not included in this analysis.

Stations in Western Pasadena had the highest number of commercial building permits from 2001-2004 (Figure 1.19). In 2003, the value of these permits was over \$50 million and included a permit just over \$22 million for a subterranean parking structure for the Del Mar station. In 2003 and 2004 these permits also included permits for the subterranean parking structure and building construction for the Western Asset Plaza.

Station areas in Eastern Pasadena had over 40 residential permits from 2002-2004, and these permits were valued over \$2.6 in 2003 and 2004. Although there was only a total of 5 mixed use permits between 2002-2005 near these stations, these permits totaled over \$14 in 2003, due in large

³ Results based on data from the Cities of Los Angeles and Pasadena may not be directly comparable since these municipalities have separate permitting procedures, classifications, and databases. Building permit data was not available for the Mission station area in South Pasadena.

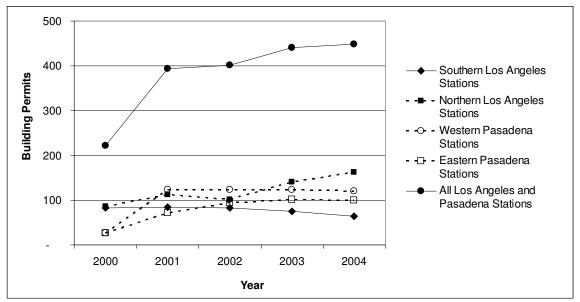
part to the Oak Knoll Condos near the Lake station. These station areas had a peak in the value of commercial permits in 2003, most of which corresponds with the construction of a six story office building on Walnut near the Lake station.

Methodology

Data on building permits for station areas in the City of Los Angeles were obtained from the LALots program carried out by the UCLA Advanced Policy Institute which obtained the data from the City of Los Angeles Housing Department. Residential permits include those permits identified as "1 or 2 Family Dwelling," "1 or 2 Family Dwelling/EQ," "Apartment," "Apartment/EQ," "Apartment/Fire Safety," "Major Apartment," "Residential," or "Residential – General." Commercial permits include those permits identified as "Commercial" "Commercial/EQ" "Commercial - General" "Major Commercial" "Major Commercial/EQ" "Major Commercial/Fire Safety".

Permit data for station areas in the City of Pasadena were obtained at a parcel-level from the City of Pasadena Department of Planning & Development Department. Residential permits include those permits identified as "R"; commercial permits include those permits identified as "NR"; and mixed use permits included those permits identified as "M." Only approved permits with the status code of "FNL," "ISS," "REC," and "APR" were included.

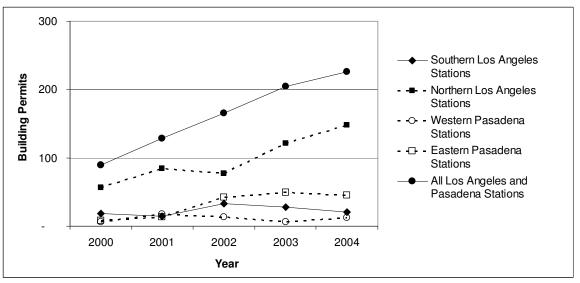
Building permit activity between 2000-2004 is presented separately for Los Angeles and Pasadena since these municipalities have separate permitting procedures, classifications, and databases. Therefore, results based on data from each city may not be directly comparable. Building permit data for South Pasadena was not available for this analysis. Permit values were adjusted to constant 2005 dollars.



Note: Excludes mixed use permits from the City of Pasadena data.

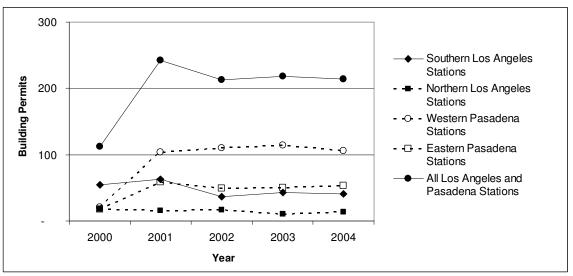
Source: City of Pasadena Department of Planning & Development Department and the City of Los Angeles Housing Department (obtained via the LALots of the UCLA Advanced Policy Institute)

Figure 1.17 Total Residential and Commercial Permits 2000-2004, Los Angeles & Pasadena Stations



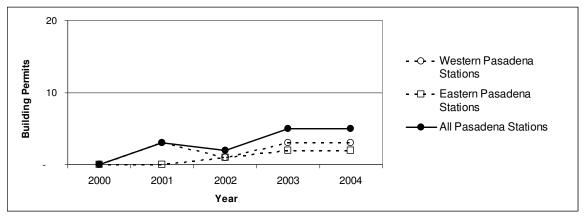
Source: City of Pasadena Department of Planning & Development Department and the City of Los Angeles Housing Department (obtained via the LALots of the UCLA Advanced Policy Institute)

Figure 1.18 Residential Permits 2000-2004, Los Angeles & Pasadena Stations



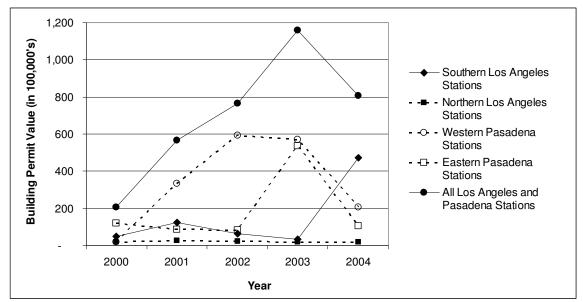
Source: City of Pasadena Department of Planning & Development Department and the City of Los Angeles Housing Department (obtained via the LALots of the UCLA Advanced Policy Institute)

Figure 1.19 Commercial Permits 2000-2004, Los Angeles & Pasadena Stations



Source: City of Pasadena Department of Planning & Development Department

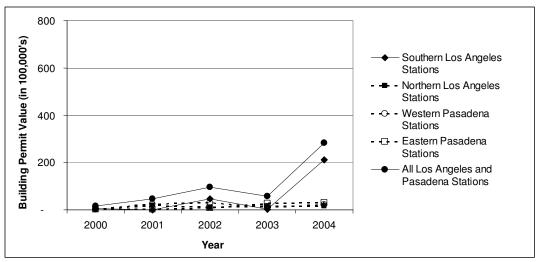
Figure 1.20 Mixed Use Permits 2000-2004, Pasadena Stations



Note: Adjusted to 2005 Dollars. Excludes mixed use permits from the City of Pasadena data.

Source: City of Pasadena Department of Planning & Development Department and the City of Los Angeles Housing Department (obtained via the LALots of the UCLA Advanced Policy Institute)

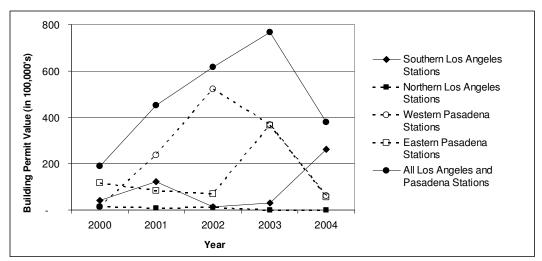
Figure 1.21 Total Residential and Commercial Permit Values 2000-2004, Los Angeles & Pasadena Stations



Note: Adjusted to 2005 Dollars.

Source: City of Pasadena Department of Planning & Development Department and the City of Los Angeles Housing Department (obtained via the LALots of the UCLA Advanced Policy Institute)

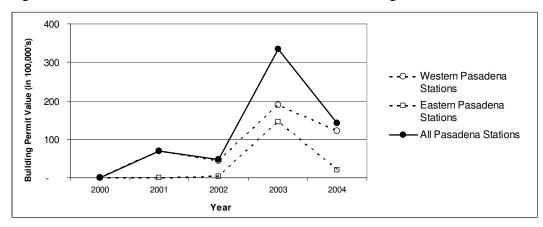
Figure 1.22 Residential Permit Values 2000-2004, Los Angeles & Pasadena Stations



Note: Adjusted to 2005 Dollars.

Source: City of Pasadena Department of Planning & Development Department and the City of Los Angeles Housing Department (obtained via the LALots of the UCLA Advanced Policy Institute)

Figure 1.23 Commercial Permit Values 2000-2004, Los Angeles & Pasadena Stations



Note: Adjusted to 2005 Dollars.

Source: City of Pasadena Department of Planning & Development Department

Figure 1.24 Mixed Use Permit Values 2000-2004, Pasadena Stations

1.9 Vacant Properties in Station Areas

This section provides insight on the location and use type of underutilized spaces within walking distance of Gold Line stations based on parcel-level tax assessor data for station areas. It presents descriptive statistics (Table 1.9) and maps (Figures 1.25-1.38) of station area vacant lots for 2004 and 2006.

The parcel vacancy rate varies across station areas with the highest acreage of vacant parcels being in the Southwest Museum station area, where over 30 acres of single family residential parcels north of the station or over 20% of the total station area was vacant according to available data (Table 1.9). Sixteen percent of Chinatown parcels totaling 23 acres were vacant in 2004; 11 acres were commercial, 9 acres were industrial and 3 acres were single-family residential. Ten percent of the Memorial Park station area, or 25 acres of commercial parcels, were vacant in both years. Ten percent of the Lincoln Heights/Cypress Park station area, totaling 16 acres, was vacant in 2004. This total was reduced to 9 acres in 2006 due to the conversion of industrial parcels near the station platform to residential uses. The remaining station areas had less than a 7% parcel vacancy rate. Based on this analysis alone it would seem that the Southwest Museum, Chinatown, Memorial Park, and Lincoln Heights/Cypress Park stations would have the highest development potential.

Table 1.9 Vacant Parcels in Station Areas, by Land Use Type, 2004 and 2006

	Union Station		Chinatown		Lincoln Heights/ Cypress Park		Heritage Square/ Arroyo		Southwest Museum		High	land Park
	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres
Total Acreage	134		147		164		123		146		149	
2004 Vacant Parcels by	Use Type											
Total Vacant	7	5%	23	16%	16	10%	7	6%	33	23%	5	3%
Residential												
Single Family	-	-	3	2%	5	3%	3	3%	33	22%	3	2%
2-4 units	-	-	-	-	-	-	-	-	-	-	-	-
5 or more units	-	-	-	-	-	-	1	1%	-	-	-	-
Commercial	-	-	11	7%	1	1%	-	-	-	-	1	1%
Industrial	7	5%	9	6%	9	6%	3	2%	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-
2006 Vacant Parcels by	Use Type											
Total Vacant	7	5%	28	19%	9	6%	6	5%	32	22%	5	3%
Residential												
Single Family	-	-	3	2%	5	3%	3	2%	32	22%	3	2%
2-4 units	-	-	-	-	-	-	-	-	-	-	-	-
5 or more units	-	-	-	-	-	-	-	-	-	-	-	-
Commercial	-	-	12	8%	1	1%	-	-	-	-	1	1%
Industrial	7	5%	13	9%	3	2%	3	2%	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-

Source: 2004 and 2006 tax assessor data.

Table 1.9 (Cont.) Vacant Parcels in Station Areas, by Land Use Type, 2004 and 2006

	N	lission	Fi	Ilmore	D	el Mar	Mem	orial Park		Lake		Allen		ra Madre Villa
	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres	Acres	% of Total Acres
Total Acreage	123		128		147		245		126		175		186	
2004 Vacant Parcels by	Use Type													
Total Vacant	2	2%	5	4%	6	4%	25	10%	5	4%	6	3%	8	4%
Residential														
Single Family	-	-	2	1%	1	1%	-	-	4	3%	2	1%	-	-
2-4 units	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 or more units	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Commercial	1	1%	3	2%	3	2%	24	10%	1	1%	3	1%	1	0%
Industrial	1	1%	-	-	2	1%	-	-	-	-	-	-	7	4%
Government	-	-	-	-	-	-	-	-	-	-	1	0%	-	-
2006 Vacant Parcels by	Use Type													
Total Vacant	3	3%	5	4%	6	4%	25	10%	7	5%	4	3%	13	7%
Residential														
Single Family	-	-	2	1%	1	1%	-	-	4	3%	2	1%	-	-
2-4 units	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 or more units	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Commercial	1	1%	2	2%	3	2%	24	10%	3	2%	2	1%	1	0%
Industrial	1	1%	1	1%	2	1%	-	-	-	-	-	-	12	7%
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: 2004 and 2006 tax assessor data.

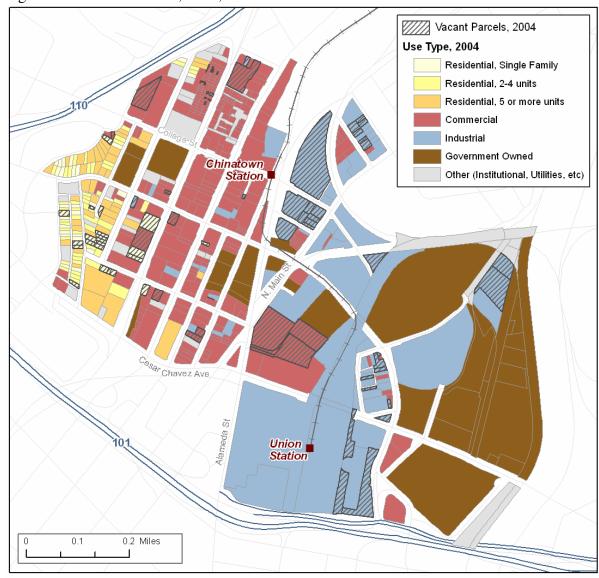


Figure 1.25 Vacant Parcels, 2004, Union Station and Chinatown Station Areas

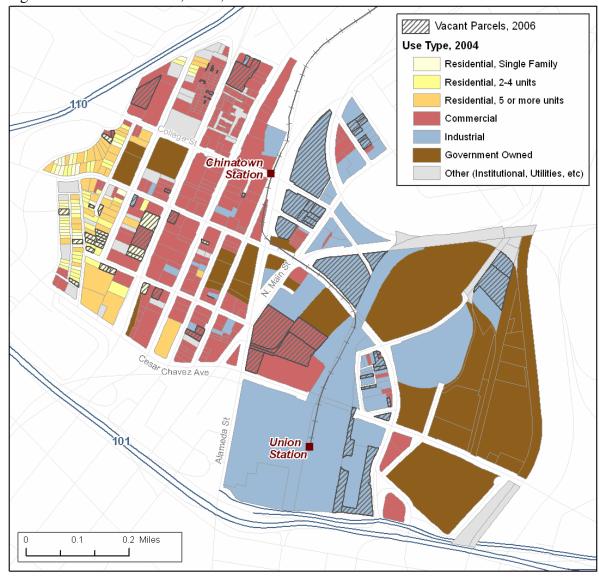


Figure 1.26 Vacant Parcels, 2006, Union Station and Chinatown Station Areas

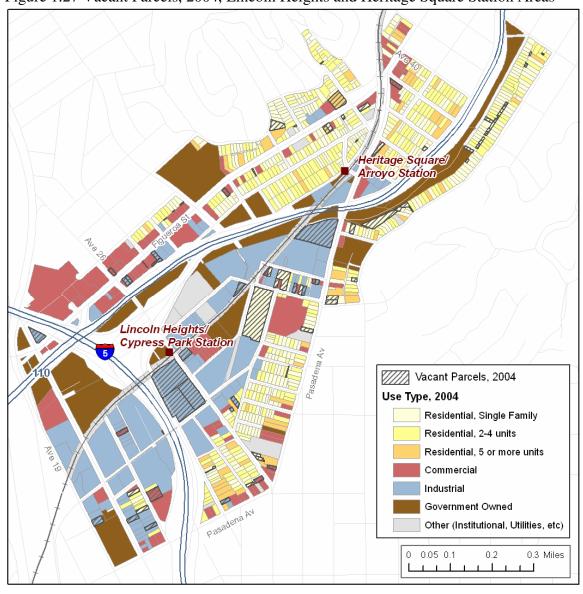


Figure 1.27 Vacant Parcels, 2004, Lincoln Heights and Heritage Square Station Areas

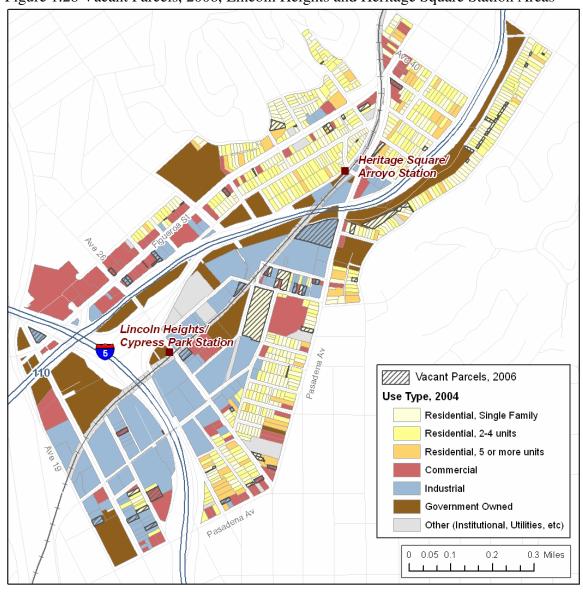


Figure 1.28 Vacant Parcels, 2006, Lincoln Heights and Heritage Square Station Areas

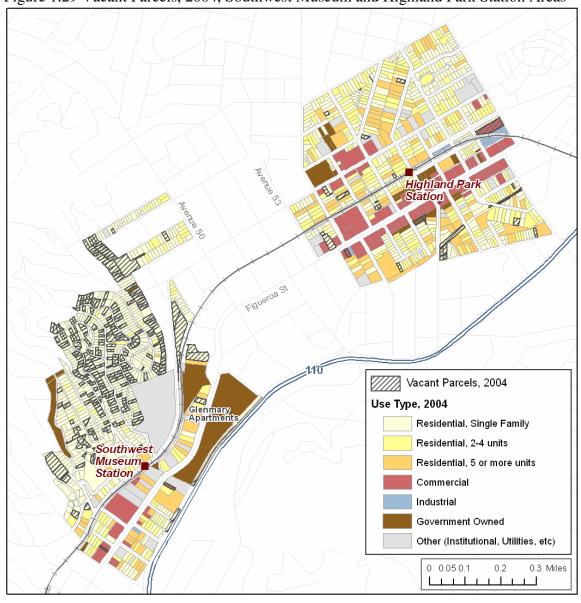


Figure 1.29 Vacant Parcels, 2004, Southwest Museum and Highland Park Station Areas

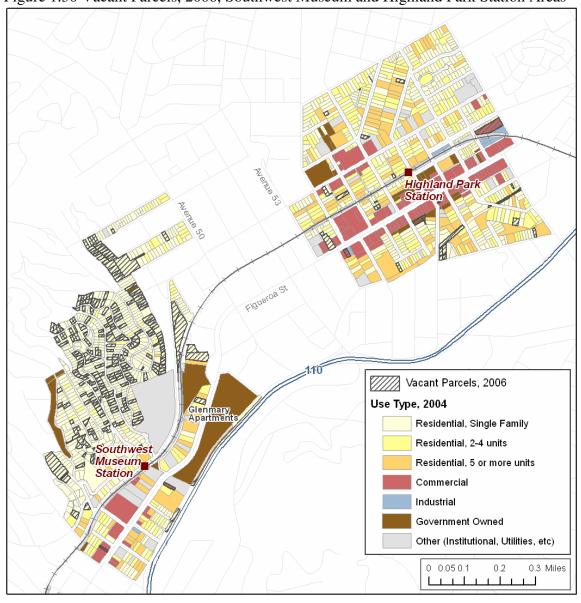


Figure 1.30 Vacant Parcels, 2006, Southwest Museum and Highland Park Station Areas

Figure 1.31 Vacant Parcels, 2004, Mission Station Area



Figure 1.32 Vacant Parcels, 2006, Mission Station Area



Vacant Parcels, 2004 Green St Use Type, 2004 Residential, Single Family Residential, 2-4 units Residential, 5 or more units Commercial Del Mar Station Industrial Del Mar Blvd Government Owned Other (Institutional, Utilities, etc) California Blvd Fillmore Station

0.05 0.1

0.2

0.3 Miles

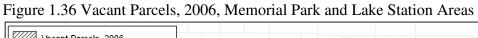
Figure 1.33 Vacant Parcels, 2004, Fillmore and Del Mar Station Areas

Vacant Parcels, 2006 Use Type, 2004 Residential, Single Family Residential, 2-4 units Residential, 5 or more units Commercial Del Mar Station Industrial Government Owned Del Mar Blvd Other (Institutional, Utilities, etc) California Blvd Fillmore Station 0.05 0.1 0.2 0.3 Miles

Figure 1.34 Vacant Parcels, 2006, Fillmore and Del Mar Station Areas

Vacant Parcels, 2004 Orange Grove Blvd Use Type, 2004 Residential, Single Family Residential, 2-4 units Residential, 5 or more units Commercial Industrial Government Owned Other (Institutional, Utilities, etc) Lake Station Walnut St Memorial Park Colorado Blvd 0 0.05 0.1 0.3 Miles

Figure 1.35 Vacant Parcels, 2004, Memorial Park and Lake Station Areas





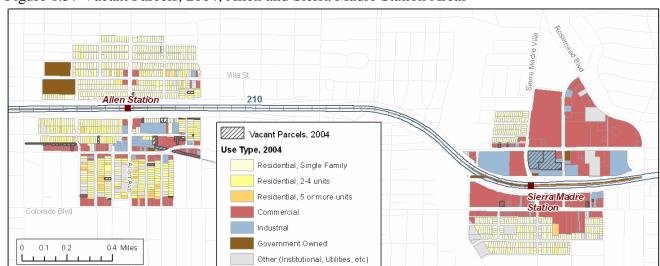
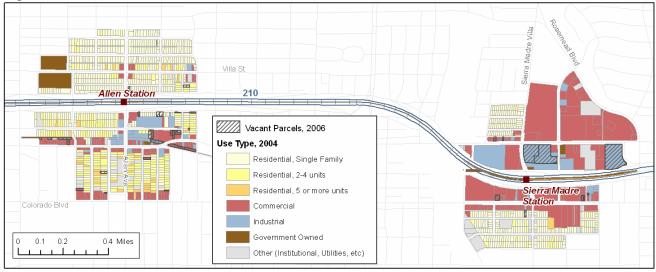


Figure 1.37 Vacant Parcels, 2004, Allen and Sierra Madre Station Areas





1.10 Station Area Typologies

This section presents station area typologies based on nearby characteristics including existing land use patterns, residential density, job density and Gold Line boarding and alighting patterns. These typologies classify station areas into descriptive categories, and are not meant as a prescriptive evaluation of development potential or of the type of development that should be promoted in station areas. Rather, these typologies describe the existing characteristics of station areas by synthesizing the corridor baseline profiles and trends in previous sections of this report. These descriptive typologies provide background and contextual information that could be used in a series of visioning sessions by impacted municipalities to develop design guidelines for station areas with neighborhood input.

Table 1.10 provides an overview of station area typologies, and Table 1.11 classifies Gold Line station areas into these descriptive categories based on existing characteristics. We classify the Union Station area as a "Major Transit Center" because unlike other Gold Line station areas, this station is dominated by transportation-related uses associated with a major transit hub and by commercial and industrial uses. We classify the Lincoln Heights/Cypress Park station area as an "Industrial Complex" because the area immediately adjacent to the station was dominated by industrial and transportation uses in our baseline profile. This pattern resulted in a poor connectivity between the station and residential uses. Given the substantial residential development immediately adjacent to the station, we anticipate this area could over time become more of a "Neighborhood Complex" described below.

We classify the Chinatown and Memorial Park station areas as "Regional Centers" because they have a high level of commercial activity, public facilities, and amenities that have a regional draw beyond the immediate neighborhood. The Memorial Park station area is near the commercial hub of Old Town Pasadena and is adjacent to the municipal government complex, both of which connect this station area to the larger region. Businesses and public uses in the pedestrian-friendly Chinatown station area also serve both local and regional residents.

We classify the Highland Park, Mission, Fillmore, Del Mar, and Lake station areas as "Neighborhood Centers" because they are predominantly residential, with a moderate to high area-level mix of commercial, entertainment, and other uses/activities that generally serve the immediate surrounding community. We classify the Heritage Square/Arroyo, Southwest Museum, and Allen station areas as "Neighborhood" because they are predominantly residential with a low area-level presence of commercial uses relative to the Gold Line's other station areas.

Methodology

The typology classifications in this supplemental report were developed by integrating previous TOD typology classifications referenced in Table 2 with area characteristics near Gold Line stations and are highly specific to the Gold Line. Unlike some previous TOD typology classifications, the typologies in this supplemental report do not provide prescriptive guidance on the type of development which should be pursued in station areas and should not be directly applied to station areas in other transit corridors which likely have different characteristics and development context.

We developed typologies as comparative classifications across Gold Line station areas; they should not be directly compared to typology classifications for other lines. For instance, although the residential density of station areas in the Gold Line corridor may be relatively high

compared to another transit corridor, our typologies consider the residential density of each station area as relative to all other station areas. For example, the residential density classifications in Table 1.11 provide a relative measure (Low, Moderate, High) across Gold Line station areas.

The station area characteristics in Table 2 are based on the corridor baseline profiles and trends in previous sections of this report. Classifications are based on the following definitions:

- Predominant Land Use The most prevalent one or two land use types based on SCAG's 2005 land use data
- Composition of Commercial Uses at Residential Stations For station areas with a predominant residential use, the main types of residential parcels based on tax assessor information based on the following categories:

SFR - Residential parcels with 1 unit (Single-Family Residential)

2-4 units – Residential parcels with 2-4 units

MFR - Residential parcels with 5 or more units (Multi-Family Residential)

• Residential Density – Housing units per square mile based on 2000 census SF3 block group data classified into the following categories:

High: over 4,000 units per square mile

Moderate: 1,500-4,000 units per square mile

Low: less than 1,500 units per square mile

- Job Density The most prevalent employment sectors developed as a composite of tract-level 2000 data from Dun & Bradstreet and 2005 data from the California Employment Development Division.
- Ridership A composite classification of station-level ridership estimates provided by the Los Angeles Metropolitan Transportation Authority based on the following categories:

Very High: over 5,000 boardings/alightings

High: 1,000-2,000 boardings/alightings Moderate: 500-1,000 boardings/alightings Low: less than 500 boardings/alightings

Table 1.10 Station Typology Categories

Typology	Station	Adapted from
Major Transit Center	 Mix of land uses Transit connections; high ridership	LAMTA Land Use Transportation Policy
Industrial Complex	Industrial uses (wholesaling, warehouses, public facilities)Freeway infrastructure	LAMTA Land Use Transportation Policy
Neighborhood	 Predominantly residential uses Neighborhood commercial uses and amenities 	The New Transit Town
Neighborhood Center	 Commercial/residential mix; moderate to high level of commercial uses Provides commercial, entertainment, and other uses/activities to surrounding community Low to moderate concentration of jobs 	LAMTA Land Use Transportation Policy
Regional Center	 Adjacent mixed and residential units Predominantly or highly commercial, often including office use Moderate to high concentration of jobs Mix of parking, commuter services, and uses that serve the region. 	LAMTA Land Use Transportation Policy The New Transit Town

Sources referenced in developing station area typologies

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Los Angeles County Metropolitan Transportation Authority. (1993). *MTA Land Use Transportation Policy Document*. From the Transit-Based Housing Symposium, Emerging Designs for Transit-Based Communities, April, 1993.

Loukaitou-Sideris, Anastasia and Tridib Banerjee. (1994). Form Follows Transit? The Blue Line Corridor's Development Potential. Project report.

Table 1.11 Gold Line Stations by Typology Classification, with Station Area Characteristics

Station	Typology	Predominant Land Use	Composition of Residential Uses	Mix of Commercial Uses at Residential Stations	Residential Density	Job Density	Boardings & Alightings
Union Station	Major Transit Center	Transportation & Offices			Low	High (Wholesale, Manuf., Transp.)	Very High
Chinatown	Regional Center	Commercial & Public Facilities			Moderate	Moderate (Service, Govt.)	Moderate
Lincoln Heights/ Cypress Park	Industrial Complex	Industrial & Freeway			Low	Low	Low
Heritage Square/ Arroyo	Neighborhood	Residential	SFR, 2-4 units	Low	Moderate	Low	Low
Southwest Museum	Neighborhood	Residential	SFR	Low	Moderate	Low	Low
Highland Park	Neighborhood Center	Residential	SFR, 2-4 units, MFR	Moderate	High	Low	High
Mission	Neighborhood Center	Residential	SFR, 2-4 units, MFR	Moderate	Moderate	Low	Moderate
Fillmore	Neighborhood Center	Residential/Com mercial	SFR, Condo	High	Moderate	Moderate (Service)	Moderate
Del Mar	Neighborhood Center	Residential/Com mercial	SFR, Condo	High	Moderate	High (Service, FIRE, Retail)	Moderate
Memorial Park	Regional Center	Commercial & Public Facilities			Moderate	High (Service, Govt., FIRE, Info)	High
Lake	Neighborhood Center	Residential	SFR, 2-4 units, MFR	Moderate	High	Moderate (Service, FIRE, Govt.)	Moderate
Allen	Neighborhood	Residential	SFR, 2-4 units, MFR	Low	Moderate	Low	Moderate
Sierra Madre Villa	Neighborhood Center	Residential/Com mercial	SFR	Very High	Low	Moderate (Service, Retail)	High

1.11 Development Goals & Plans

This section provides an overview of the development goals and plans that the municipalities along the Gold Line corridor have for station areas. Whereas general plans tend to provide general development principles for fairly large areas, specific area plans often contain more articulate goals concerning transit-oriented development (TOD) plans for station areas. Section 3 provides a more detailed overview of municipal development goals and plans. Appendix B provides complete references for the plans discussed in this subsection.

Los Angeles Station Development Goals

The City of Los Angeles contains six Gold Line stations. Two of these station areas—Union Station and Chinatown—are governed by the *Central City North Community Plan* (adopted in 2000). Land use for the parcels immediately adjacent to Union Station are elaborated in *The Alameda Specific Plan* (1996) (Figure 1.39). The remaining four station areas in LA are covered by the *Northeast Los Angeles Community Plan* (NLACP), adopted in 1999, Lincoln Heights/Cypress Park, Heritage Square/Arroyo, Southwest Museum, and Highland Park. Specific plans that cover these areas—*Mt. Washington Specific Plan* (1993) and *Avenue 57 Transit-Oriented District* (2002)—provide more details about development goals in localized areas (Figure 1.40).

The General Plan Framework Element, which sets the citywide context for long-term growth in Los Angeles, identifies the existing and planned transit system as an "opportunity to concentrate development, affect the City's form, and conserve the existing character of stable neighborhoods." This theme is echoed throughout the Framework and in the policies put forth in the Community and Specific Plans governing the station areas. The *Central City North Community Plan* seeks to locate new housing in a manner that reduces vehicular trips and makes it accessible to services and facilities, while encouraging mixed use buildings in commercial zones within Transit Oriented Districts. The *Alameda Specific Plan* articulates continued and expanded development of the site as both a major transit hub for the region, and as a mixed-use development providing office, hotel, retail, entertainment, tourist, residential and related uses.

The NLACP is concerned with developing safe and attractive residential areas, economically vibrant and competitive commercial districts, and job opportunities. It suggests development should be sensitive to both the existing character of the area and not be a strain on the infrastructure. The NLACP also calls for a coordinated integration of development around transit stations to improve services, access, and economic vitality of the community. The *Mt. Washington Specific Plan* focuses on maintaining the residential character of its area and limiting development intensities in the hillsides. Portions of the Lincoln Heights/Cypress Park, Heritage Square/Arroyo, and Southwest Museum Station areas are covered in this plan, but there is no specific mention of TOD. This may be because the plan was written in 1993 prior to the construction of the Gold Line. As the title of the Avenue 57 Transit-Oriented District indicates, however, there is great concern for maximizing development around the Highland Park station that this plan encompasses. The plan seeks to develop a center for commercial activities in close proximity to the Gold Line Metro Rail station and to stimulate economic development through incentives to re-use existing structures without additional parking requirements. It also institutes a mixed-use component to commercial areas and seeks to encourage new cultural facilities and services and maintain a diverse population.

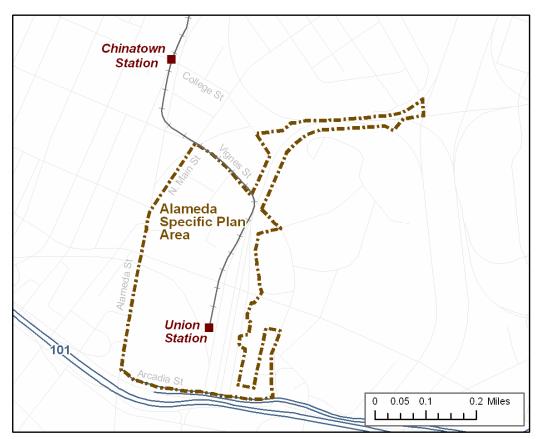


Figure 1.39 Boundaries of Specific Plans Affecting Gold Line Station Areas, Los Angeles

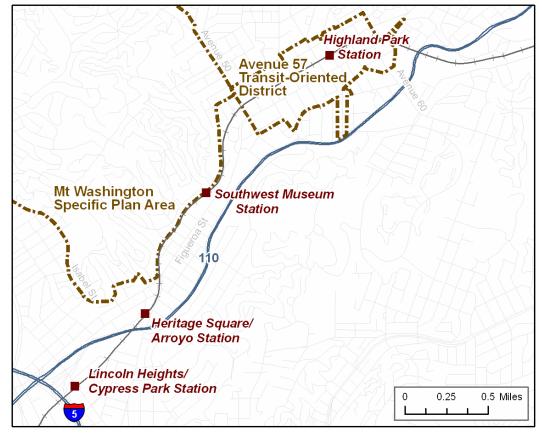


Figure 1.40 Boundaries of Specific Plans Affecting Gold Line Station Areas, Los Angeles

South Pasadena Station Development Goals

The Mission Street station is the only Gold Line station in South Pasadena, and the *Mission Street Specific Plan* specifies land use and design guidelines for the station area (Figure 1.41). The plan was adopted by the South Pasadena City Council in April 1996, with conditional uses updated in December 2000. Gold Line riders are not an explicit focus of the plan, which aims to re-establish Mission Street as the historic downtown of South Pasadena, with a pedestrian-oriented shopping district of continuous storefronts with housing or offices above or behind the retail uses. The plan devotes considerable attention to parking. Businesses are encouraged to share parking, and the plan indicates a desire to see a central parking structure developed that can be used by local businesses, their patrons, and Gold Line riders.

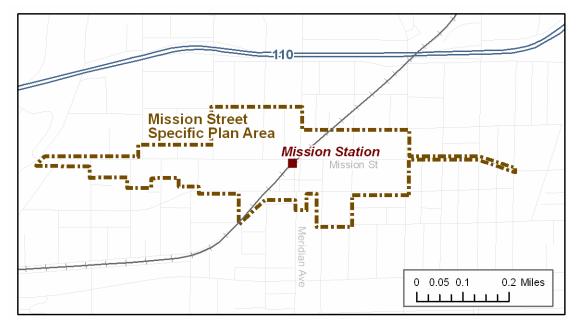


Figure 1.41 Boundaries of Specific Plans Affecting Gold Line Station Areas, South Pasadena

Pasadena Station Development Goals

The 1994 Pasadena General Plan revision calls for the creation of specific plans to guide development around the proposed light rail stations. The specific plans intend to implement development following the seven guiding principles of the Pasadena General Plan, which are:

- 1) Growth will be targeted to serve community needs and enhance the quality of life.
- 2) Change will be harmonized to preserve Pasadena's historic character and environment.
- 3) Economic vitality will be promoted to provide jobs, services, revenues and opportunities.
- 4) Pasadena will be promoted as a healthy family community.
- 5) Pasadena will be a city where people can circulate without cars.
- 6) Pasadena will be promoted as a cultural, scientific, corporate, entertainment and education center for the region.
- 7) Community participation will be a permanent part of achieving a greater city.

The Gold Line station areas in Pasadena are impacted by five separate specific plans (Figures 1.42 and 1.43). The *Central District Specific Plan* touches or encloses four Gold Line stations – Fillmore, Del Mar, Memorial Park, and Lake. This is the most recent of the specific plans, adopted in November 2004, and it contains detailed guidelines for encouraging transit-oriented development

(TOD). More compact mixed-use development at higher densities (48-87 dwelling units per acre) is encouraged in proximity to the station areas and parking requirements are lowered. Specific land use, streetscape, and design recommendations follow the general tone of the specific plan, which aims to develop the Central District as a pedestrian and transit friendly place to live, work and shop, building off the existing character and land uses in each of the seven sub-districts within the plan area. This is generally true for all the Pasadena specific plans. The South Fair Oaks Specific Plan (1998) contains the Fillmore Street Station; the North Lake Specific Plan (1997) affects the northern portion of the Lake station area; the East Colorado Specific Plan (2003) contains portions of the Allen Avenue station area and part of the Sierra Madre Villa station area; and the East Pasadena Specific Plan (2000) covers a large additional portion of the Sierra Madre Villa station area. All these plans seek to maximize development opportunities around the light rail station sites, either through increasing housing densities (North Lake, East Colorado), or encouraging businesses to locate or expand there (South Fair Oaks, East Pasadena) while also making some provision for new housing units. They are attentive to protecting the existing character of the locations, while maximizing redevelopment and infill opportunities. The plans develop unifying design guidelines to help provide visual consistency, outline extensive streetscape and pedestrian improvements, and seek to minimize or relocate autooriented uses, particularly on major commercial and/or industrial corridors.

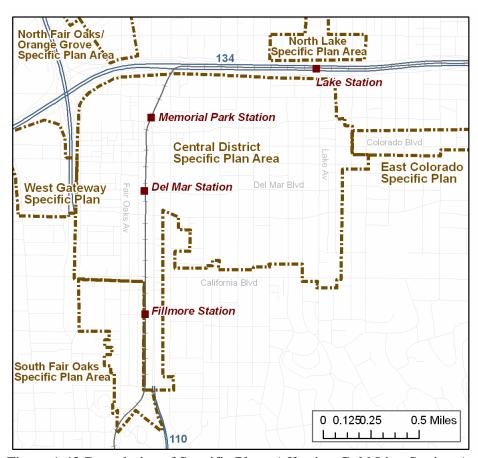


Figure 1.42 Boundaries of Specific Plans Affecting Gold Line Station Areas, Western Pasadena

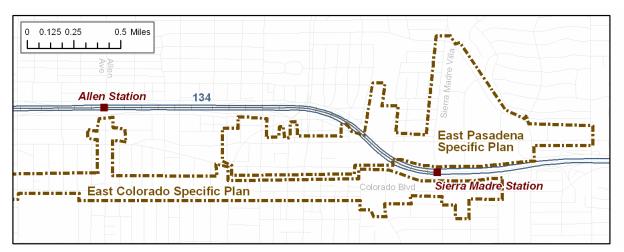
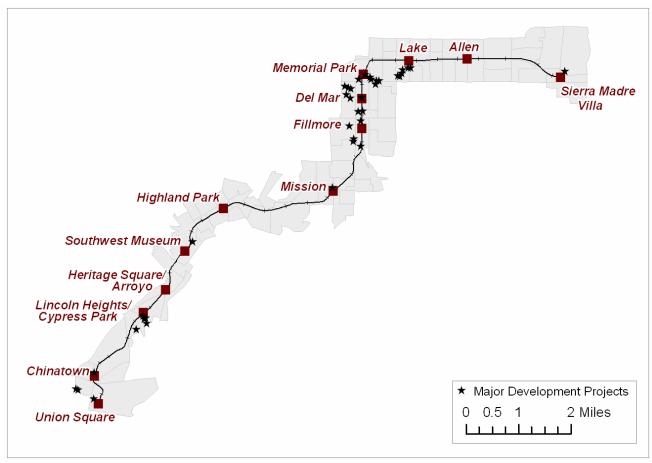


Figure 1.43 Boundaries of Specific Plans Affecting Gold Line Station Areas, Eastern Pasadena

1.12 Overview of Development Projects

This subsection provides an overview of major development projects in the immediate vicinity of Gold Line stations. The project list is based on an inventory compiled from municipal, developer, and public information sources and is not meant as an exhaustive inventory of all development in the corridor. It discusses a representative sample of major and significant residential, commercial and mixed-use projects that are in the pre-development, construction, and completed stages. Figure 1.44 maps major development in station areas, and Table 1.12 summarizes key characteristics of these developments. It also indicates those projects for which interviews were conducted for the analysis in Sections 2 and 3 of this report. Appendix B provides a more detailed overview of station area development context and of the characteristics of major developments in the corridor.



Source: Based on an inventory compiled from municipal, developer, and public information.

Figure 1.44 Gold Line Major Development Projects

Development along the Gold Line varies greatly by station, with some station areas showing little or no new development such as the Heritage Square/Arroyo station area, while others hosting multi-million-dollar projects, such as the Lincoln Heights/Cypress Park station area with new residential developments valued in excess of \$100 million (Figure 1.30). Some station areas are in the process of being transformed, while others are left largely untouched. Formerly industrial areas near such stations as Del Mar in Pasadena are now being completely transformed by mixed-use projects that integrate 1,400 new housing units with over 160,000 square feet of retail space (Table 1.12). Development near the Memorial Park Station in Pasadena supports ample business activity, and complements the Paseo Colorado project which features 590,000 square feet of commercial space.

However, areas adjacent to three Gold Line stations do not show much evidence of construction activity and are preserved in much the same state as they were prior to the Gold Line. These include the Heritage Square/Arroyo and Highland Park station areas in Los Angeles and the Allen station area in Pasadena.

A number of new housing and commercial development projects catering to the light rail have been completed since the Gold Line commenced operations in 2003 (Table 1.12). The Mozaic Apartments project is a four-story residential development with 272 residential units immediately adjacent to Union Station, and across from the pedestrian-oriented shops and restaurants on Olvera Street. Developments near the Chinatown station benefit from a vibrant commercial and pedestrian neighborhood. Completed projects in the area include, among others, new housing developments like the Castelar Apartments with 100 market-rate units and Cesar Chavez Gardens with 47 affordable apartments. The Blossom Plaza project, currently in the predevelopment stage, is being planned adjacent to the Chinatown station platform and will include over 160 residential units.

Near the Lincoln Height/Cypress Park station, AMCAL is leading a \$73 million, four-phase residential development that is replacing blighted vacant warehouses and helping to revitalize a historic neighborhood. Flores Del Valle offers 146 affordable housing units varying in size from two to four bedrooms for larger families; Puerta Del Sol provides 165 condos, thirty percent of which are affordable to middle-income households; Tesoro Del Valle, once complete, will supply 121 units of affordable housing; and Camino Al Oro provides 102 units of affordable housing to seniors. In addition, affordable housing provider Livable Places is preserving some of the warehouse character of the area by converting the Fuller Warehouse into 102 condominium units, 75 percent of which will be provided at the affordable levels of \$200,000 per unit.

There is a single new development at Heritage Square, Glenmary Apartments, which provides 15 new housing units to seniors responsible for the care of their grandchildren. Mission Meridian in South Pasadena is integrated sensitively into the existing built environment of the single family neighborhood that surrounds it and provides 67 residential units, 36 businesses, a yoga studio, and an art school.

Projects near the Gold Line in Pasadena have been able to take advantage of the strong real estate market and development potential, which the City of Pasadena experienced for many years prior to the construction of the Gold Line, and incentives embodied in the city's development plans and goals. Substantial commercial development is planned near the Fillmore station and significant residential and mixed-use projects are under construction or have been completed near the Del Mar and Memorial Park stations. Projects in these areas have benefited from increasingly mixed-use and vibrant neighborhoods and proximity to Old Town Pasadena, the city's historic downtown.

The Del Mar station area has undergone the most development activity of all station areas, and includes the most prominent TOD developments along the Gold Line corridor. The best known development is *Archstone Del Mar*, a mixed-use project that spans over and around the station platform. Recently completed, this project includes 347 residential units and offers 12,000 square feet of retail space anchored by the historic Santa Fe Railroad Depot. Because it is two to three times the size of other mixed use developments in Pasadena, the most controversial project near the Del Mar station is *Westgate*, which will add about 820 housing units in 26 buildings spread over three city blocks, with only 24,000 square feet for retail space. While *Archstone Del Mar* is almost complete, *Westgate* has yet to break ground. Several smaller mixed-use projects have or will be added to the station area. Upon completion of all Del Mar projects, 1,400 housing units and 160,000 square feet of retail space will be added to the area, making it one of the most transformed station areas of the Gold Line corridor.

Significant development has already occurred at the Memorial Park Station in Pasadena, but it is by no means complete. Both Paseo Colorado and Holly Street Apartments were completed prior to the initiation of the Gold Line but in anticipation of it, and added over 600,000 square feet of retail

space and 750 units of housing respectively to the area. These developments help make this Pasadena station a major destination.

The Lake station area is being developed with mixed-use and independent business space in mind. Near the station, about 350 housing units and over 230,000 square feet of commercial space are currently in construction or predevelopment. The Pinnacle development located adjacent to the Sierra Madre Villa station is currently under construction, includes 188 residential units, and preserves the historic Stuart Pharmaceutical building and landscaping.

Table 1.12 Key Characteristics of Major Developments in Gold Line Station Areas

Poled Harre	Project Mattess	Dwe king	Developer of the control of the cont	Residential Residential	Jrills', Rental	Ourterstiff	Attordable	Contract	in Serior	Parking States	este die
	, ,	, , ,	, - ,	, ,					, , , ,	· / ·	, - ,
Inion Station											
Mozaic Apartments*	810 N Alameda St	95	250,000 250,000	272 272	272 272	-	-	-	-	408 Complete	
Chinatown											
Blossom Plaza*	900 N Broadway	89	405,000	169	-	169	34	-	40,000	344 Predevelopment	18 Affordable to 120% AMI 16 affordable at 150% AMI
Capital Mills	1231 N Spring St	32	60,820	40	-	40	-	-	-	60 Complete	
Castelar Apartments	625 N Hill St	93	98,589	101	101	-	101	-	-	120 Complete	Affordable to 60% AMI.
Cesar Chavez Gardens Apts*	* 555 W Cesar E Chavez	32	63,180	47	47	-	47	-	-	52 Complete	Affordable to 60% AMI.
			627,589	357	148	209	182	-	40,000	576	
incoln Heights/Cypress Par	k										
Camino Al Oro*	330 N Avenue 26	58	76,919	102	102	-	102	-	-	61 Complete	Senior - Affordable to 60% AMI.
Flores Del Valle*	222 N Avenue 23	58	110,100	146	146	-	146	-	-	161 Complete	Large Families - Affordable to 60% AM
Fuller Lofts*	200 N San Fernando Rd	92	142,000	102	-	102	77	-	30,000	140 Construction	Affordable to 120% and 150% AMI
Puerta Del Sol*	360 N Avenue 26	58	190,531	165	-	165	50	-	14,000	264 Complete	Affordable to 120% and 150% AMI
Tesoro Del Valle*	2301 N Humboldt St	58	138,568	120	120	-	120	-	-	132 Construction	Large Families - Affordable to 60% AM
			658,118	635	368	267	495	-	44,000	758	
leritage Square											
Glenmary Kinder Care	4733 N Figueroa St	54	12,377	15	15	-	15	-	-	15 Complete	Senior supporting Grandchildren Affordable to 60% AMI.
		-	12,377	15	15	-	15	-	-	15	7
outhwest Museum											
(none)											
lighland Park											
(none)											
Mssion											
Mission Meridian*	964 Mission St	40	221,330	67	-	67	-	-	5,000	324 Complete	150 parking spaces provided for City of South Pasadena & MTA.
			221,330	67	-	67		-	5,000	324	on, or coan rabadona a mirra

^{*} Projects for which interviews were conducted

Table 1.12 (Cont.). Key Characteristics of Major Developments in Gold Line Station Areas

Project Harie	Project Addless	Dugling J	Development Development	Residental Resident	Jrits', Rental	Oureestil	Affordadi	Cornes	cid soft soft	Partition Project State	Special Services
Union Station											
Mozaic Apartments*	810 N Alameda St	95	250,000	272	272	-	-	-	-	408 Complete	
			250,000	272	272	-	-	-	-	408	
Chinatown											
Blossom Plaza*	900 N Broadway	89	405,000	169	-	169	34	-	40,000	344 Predevelopment	18 Affordable to 120% AMI 16 affordable at 150% AMI
Capital Mills	1231 N Spring St	32	60,820	40	-	40	-	-	-	60 Complete	
Castelar Apartments	625 N Hill St	93	98,589	101	101	-	101	-	-	120 Complete	Affordable to 60% AMI.
Cesar Chavez Gardens Apts*	555 W Cesar E Chavez	32	63,180	47	47	-	47	-	-	52 Complete	Affordable to 60% AMI.
			627,589	357	148	209	182	-	40,000	576	
incoln Heights/Cypress Park											
Camino Al Oro*	330 N Avenue 26	58	76,919	102	102	-	102	-	-	61 Complete	Senior - Affordable to 60% AMI.
Flores Del Valle*	222 N Avenue 23	58	110,100	146	146	-	146	-	-	161 Complete	Large Families - Affordable to 60% AMI.
Fuller Lofts*	200 N San Fernando Rd	92	142,000	102	-	102	77	-	30,000	140 Construction	Affordable to 120% and 150% AMI
Puerta Del Sol*	360 N Avenue 26	58	190,531	165	-	165	50	-	14,000	264 Complete	Affordable to 120% and 150% AMI
Tesoro Del Valle*	2301 N Humboldt St	58	138,568	120	120	-	120	-	-	132 Construction	Large Families - Affordable to 60% AMI.
			658,118	635	368	267	495	-	44,000	758	
Heritage Square											
(none)											
Southwest Museum											
Glenmary Kinder Care	4733 N Figueroa St	54	12,377	15	15	-	15	-	-	15 Complete	Senior supporting Grandchildren Affordable to 60% AMI.
(none)			12,377	15	15	-	15	-	-	15	
lighland Park											
(none)											
Mssion											
Mission Meridian*	964 Mission St	40	221,330	67	-	67	-	-	5,000	324 Complete	150 parking spaces provided for City of South Pasadena & MTA.
			221,330	67		67			5.000	324	Oity or South I asadena & WIA.

^{*} Projects for which interviews were conducted

1.13 References

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Northeast Los Angeles Community Plan, Adopted June 1999

South Pasadena General and Specific Plans:

Mission Street Specific Plan, Adopted April 1996

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Central District Specific Plan, Adopted November 2004

East Colorado Boulevard Specific Plan, Adopted June 2003

East Pasadena Specific Plan, Adopted October 2000

North Lake Specific Plan, Adopted June 1997

South Fair Oaks Specific Plan, Adopted April 1998

Section 2. Identification of Motivations, Tensions, and Challenges for Transit Oriented Development

Introduction

When the idea of transit oriented development (TOD) entered the lexicon of planning in the late 1980s it was enthusiastically endorsed by some planners and academics (Calthorpe 1990, 1992; Katz 1994; Bernick and Cervero 1997) who viewed TODs as a way of mitigating the ubiquity of sprawl and as a strategy for smart growth. Yet actual implementation of TOD projects was slow to follow as developers and funding institutions were hesitant about the level of public acceptance and marketability of such projects. At the same time some academics pinpointed the challenges of TODs, the real and perceived barriers to development, and the frequently "missing antecedents" for neighborhood development around station areas (Loukaitou-Sideris 2000; Loukaitou-Sideris and Banerjee 2000).

Twenty years later some of the initial fears of developers have been appeased and a significantly higher number of development projects are being planned and built around transit stations and along transit corridors than in the late 1980s and 1990s. This section investigates the motivations, tensions and challenges of development in this new TOD environment. More specifically, this section identifies what has enabled and what has hindered transit oriented development (TOD) along the Gold Line corridor. We draw from interviews with twelve developers, six architects and seven planners involved in TOD development projects along the Gold Line corridor that were structured to investigate the motivations and incentives as well as the constraints and problems of building adjacent to transit. We begin with an overview of the motivations of developers to build in the Gold Line corridor. We then provide a discussion of tensions that can arise in the development process between the goals of TOD and aspects of actual implementation. The final section reports on four categories of challenges that developers, architects, and planners faced when promoting TOD in the corridor.

Motivations of developers

An expanding market and target audience

For quite long, developers were reluctant to build TODs because they perceived they were targeting a very narrow segment of the housing market: singles, young professionals, and 'empty nesters.' For one, this market segment is by no means small, as national trends have indicated. Indeed, by 1980, only 30% of the US households were dual-career couples with children. Specifically along the Gold Line corridor, 38% of the households were composed of only one person, according to the 2000 Census.⁶

Our interview results however, suggest that "yuppies," "dinks," and "empty nesters" are not the only target audience for developers of Gold Line projects. While some still perceive that their buildings are "for couples, people just starting a family, seniors, and singles" (Savvides, West Development Corporation) or for "young professionals who can commute easily to downtown" (Empakeris, DE Architects), others, like nonprofit developer Dean Matsubayashi of the Little Tokyo Service Center, build TOD housing for an expanded target audience, which includes seniors but also

⁴ See Appendix A for details on the interview methodology and for an overview of the developments for which interviews were conducted.

⁵ Section 4 of this report provides the recommendation and TOD strategies based on these challenges and the experiences of interviewees.

⁶ See the Section 1 for a detailed demographic and socioecomonic profile of the corridor.

families. Still others are quite surprised and delighted to find that their buildings appeal to an expanded market segment. As relayed by architect Stephanos Polyzoides, who designed the Mission Meridian and Archstone projects in South Pasadena and Pasadena respectively:

"One of my favorite stories was of our developer at Mission Meridian, Michael Dieden, who started with a very conventional marketing strategy and when you build buildings with this complexity and this depth, you end up attracting the entire market. So not only was the project sold in one month with four follow-up offers for each unit, but it wasn't targeted to any one particular group. So that in the end it was evenly divided between each generation. We got people in their 20's, 30's, 40's, 50's, 60's, and 70's maybe. There are six families with kids there. The other day I was walking up the street and there were two kids doing their homework on a porch. I thought it was really kind of astounding. ... I think because these buildings are so complex and diverse they end up attracting multiple markets, which is both a marketing advantage and a social advantage. And I think ultimately this makes them very real, very much like the world around them, which is not always the case with development projects. Sometimes because of the way they are conceived, they are unlike what goes on around them" (Polyzoides, Moule-Polyzoides).

While the expanding market and larger acceptance of TOD projects by the wider public is appealing to developers, identifying the proper fit between targeted demographics and unit prices is a learning process, as evidenced by the following comment by Archstone developer Matt Winsryg,

"It's a difficult thing trying to find the right demographic, the right market -- obviously people working downtown or along the Gold Line, even up north a little bit. When they extend the line out to Azusa, that's going to be a whole other market that's going to open up. There aren't many companies that know how to pinpoint that entire demographic range. And we're still learning as we go along. We know that we can't think in the traditional way focusing only on young urban professionals. We do have the ability to have families, two-income households, or single-income earners in here, but because we have such a wide range of unit types, sizes and prices, some units may not be right for some groups. But I think there's going to be a good mix because there just isn't anything of comparable quality on the market" (Winsryg, Archstone).

Demand for an alternative way of living

Changes in housing prices and escalating traffic congestion have also strengthened the desire of some for an alternative way of living, which favors higher densities and a more compact and urban type of development exemplified in TODs. In the last decades, land and housing prices have skyrocketed in the Los Angeles region, and ownership of single family homes in traditional suburban lots has become impossible for many aspiring homeowners. The rental market has followed similar ascending patterns. The time for the commute to work has consistently increased and the southland's freeways have become clogged by waves of cars. Developers and their architects, who now see a good market for TODs, acknowledge the demand for more affordable homes, schools, and offices in the metropolitan core – not in the edge cities of Moreno Valley or Santa Clarita. As argued by Rocky Shen, the architect of the Bellevue Project in Pasadena,

"Developers like TODs because high land values make lower densities financially unfeasible. Also, empty nesters and baby boomers are seeking small housing opportunities. Gas prices are causing people to reduce car commutes" (Shen, KTGY).

Slowly but surely and for some households, the idea of living in the "hassle and bustle" of the city, in a mixed-use, noisy, but also vibrant urban environment is becoming more generally appealing as expressed in the following comment:

"Would you rather have 400 sq. ft in Santa Monica next to your job and in the middle of the action for \$1000, or 800 sq. ft in Valencia for the same \$1000?" (Savvides, West Development Corp.)

Help from the Public Sector

When the first segment of the Los Angeles light rail system—the Blue Line—was put in place in 1990, municipalities seemed unprepared or unconcerned with planning for development adjacent to the line. This lack of planning stymied opportunities for development around many Blue Line stations (Loukaitou-Sideris and Banerjee, 2000). Since that time and given the pressing issues of housing demand, housing affordability, and traffic congestion plaguing them, numerous municipalities have become increasingly eager to make TODs happen by specifically planning for them, as in the case of Pasadena and South Pasadena, and also by offering development and financial incentives.

A number of city planners interviewed discussed smart growth and the need for cities and metropolitan areas to accommodate higher densities within the urban core rather than pushing the urban boundaries outwards. As explained by Art Cueto who was representing the MTA during the planning and construction phases of the Mission Meridian Development in South Pasadena, the city's Mission Street Specific Plan laid the vision and foundation for TOD.⁷

"The City of South Pasadena created a master plan for not just the site but for the whole Mission District to deal with the Gold Line. In the plan, they stipulated that any developer who came in would be awarded additional density entitlements than are currently allowed within that area if the developer allowed for a mixture of uses and if they provided public parking for the rail station. The city wanted to both entice development and leverage grant funds for the developer in order to get public amenities added to the site. Since these public amenities (subterranean parking) are extremely expensive, the only way to ensure financial viability was with public participation. The city set aside \$500,000, applied for state money in the amount of \$3.5 million, and ensured a grant from MTA. In total \$5 million of pubic funds were added to the project" (Cueto).

As further explained by South Pasadena planner Marc Castagnola:

"The Mission Street Specific Plan really put all the pieces together, all the regulation necessary to have a mixed use project, actually being constructed. And then we had a developer come to town — Creative Housing Associates — and they asked for our assistance, city assistance, to construct the Mission Meridian Project. The city assistance would be in the form of subsidy and development money in order to produce a mixed use project that would include a subterranean parking structure that would be

⁷ See Section 1.11 for an overview of development plans that impact Gold Line station areas.

dedicated exclusively for the commuters of the Gold Line. So we tried to get some subsidies from the state, from Caltrans, transportation funds and also some money from utilities from Edison for the relocation of utilities and also we put some set-aside redevelopment money for low-income to help the relocation of a couple of bungalows that were on site and turn them all into low-income housing" (Castagnola, Assistant City Manager, City of South Pasadena).

The city of Pasadena also prepared plans in anticipation of the Gold Line. The 1994 Pasadena General Plan called for the creation of specific plans to guide development around the then proposed light rail stations. In fact, the Gold Line station areas in Pasadena are impacted by five separate specific plans, which seek to maximize development opportunities around station areas through increasing housing densities (North Lake Specific Plan, East Colorado Specific Plan), or encourage businesses to locate or expand there while also allowing for new housing units (South Fair Oaks Specific Plan, East Pasadena Specific Plan).

It comes as no surprise that development incentives, such as increased floor-area ratios (FARs), that allow developers to build more units provide motivations for building around stations and often become "catalysts" for doing a project there, as observed by developer Dave Powers of BRE. Such catalysts can result in predominately non-mixed residential developments in mixed-use areas as explained by Brigg Bunker, of SARES•REGIS Group,

"City ordinances played a large role in the selection of our site [Westgate Pasadena]. We understood the zoning would allow for the level of density necessary for the development. We also realized the development wouldn't necessarily need to be the typical vertical mixed-use design that many cities and jurisdictions require. Old Pasadena is a mixed-use neighborhood, but the City of Pasadena doesn't automatically require each development to be mixed-use on its own. Our Westgate development provides the missing residential component within the Old Pasadena mixed use area." (Bunker – SARES•REGIS Group).

Sometimes it is the relaxation of requirements which typically apply to other sites that attracts developers. Having to build less parking, for example, drops the cost of development and is appreciated by some, although as we will explain later, this is not a unanimous conclusion. As emphasized by the developer of Blossom Plaza, a mixed-use development in Chinatown.

"In terms of land use approvals we are taking advantage of the fact that the city offered a 10% reduction in parking requirements because we're within 1,500 feet of the metro station so we definitely see that as a benefit and appreciate not having to build parking that isn't necessary, because we hope that people would be riding the transit.... That's very important to us because those underground parking spaces are very expensive" (Blossom Plaza Developer).

Similarly, the reduced parking requirements for TODs in Pasadena, which allows for 1.5 parking spaces per unit, were appreciated by the developers of Pinnacle, the large housing development at the Sierra Madre station.

Relaxed open space requirements prove to be big incentives for mixed-use projects according to Pasadena Planning Manager John Poindexter, while the lack of inclusionary zoning requirements was described as a "huge benefit" by the developer of Mozaic Apartments in Union Station.

Proximity to a transit line

How important is the proximity of a potential development site to a developer? As evidenced by the Gold Line study, the proximity of a mixed-use housing or commercial development to a transit line is seen as a plus for many developers, although arguably it is not the only or the most important motivation. There is no doubt that location is the most significant attractor to acquiring a site for many reasons. Developers identified the community that their project is in -- its vibrancy, physical characteristics and amenities -- as the most important factors in deciding to go ahead with a development project. At the same time, many credited the Gold Line as a contributing element in selecting their site. The following are excerpts from our interviews with developers on this topic:

"It's all about location-- location, proximity to different shops and things like that. For a lot of projects we target seniors so in those cases we do make a more conscious effort in terms of proximity to transportation, but also walking distance to different amenities and shops" (Matsubayashi, Little Tokyo Service Center).

"The train was an attractive amenity. We played that up in terms of our project description. This location had a lot of other advantages. South Pasadena is a great place to live, great schools. It's very attractive....It's a beautiful neighborhood, although it was a lot different 8 or 9 years ago than today. Nice community, human scale. You can have an impact here.... It's that kind of an intimacy that you are able to achieve in a place like this. I was attracted to that and the historical character. This is one of the last remnants of historical South Pasadena. There was fabric here to work with..." (Dieden, Mission Meridian Village development)

"The existence of the Gold Line was not the only determining factor in our decision to acquire the property but it certainly was a factor. For SARES•REGIS Group, the proximity of the transit system was important but more important was the easy access by pedestrians to downtown Old Town Pasadena" (Bunker, SARES•REGIS Group).

"There were a couple of things in selecting the site. Number one, it's Pasadena – Pasadena is a very desirable place to live. Then it's the transit station right there; that was a very big factor" (Powers, BRE).

"What attracted us to acquire the site of Fuller Lofts was the fact that it was walking distance to the transit station, it was an underutilized area, and the parcel had a three quarter acre parking lot next to the building that could be redeveloped." (Lehman, Livable Places).

"Certainly the adjacency to the Metro Gold Line station was one of the factors that we considered very attractive in looking at this site. The community that the development is located in [Chinatown] was probably the second equally important factor in selecting the site. One of the things that is wonderful about Chinatown is that there are folks living there and when you go out on the weekends or during the day during the week, people are actually walking, which we don't see too much in LA. So that certainly ties in with the transit use in creating a vibrant mixed use community. The other of course very valuable thing about the location is its proximity to downtown. So it gives people the opportunity to hop on the Gold Line and go out to downtown or out to Pasadena very easily. Or if they work at the City Center or anywhere else in downtown, they're

possibly a walk away or a short bus or a metro-dash ride away from downtown" (Blossom Plaza Developer)

"The proximity to mass transit, as well as just its orientation to downtown, its proximity to Chinatown, it's proximity to Olvera Street, all the government buildings in the area, access to freeways, etc. The Green Line was one of 4 or 5 attributes attracting us to the site. The proximity to the line is mentioned in all of our print material" (Mozaic Apartments developer).

There were also a few developers who argued that the proximity of the line had no impact on their decision to acquire or develop their site:

"I would say - this probably goes against your study — I think for us, doing these urban projects in Los Angeles right now is less about the transit than it is about the urban area. It's about being in a vibrant urban area that has a lot of amenities. Most likely our tenant is driving to work during the week but on the weekend leaves his/her car in the garage and you know is walking out to Colorado Street or restaurants and is not driving on the weekends. So I wouldn't say the Gold Line was a big draw for us but it is a plus." (Freeman, JSM Construction).

"The Gold Line didn't play a role in site selection for the Bellevue Center" (Ekstrand, Bellevue Center).

On the other hand, the architects we interviewed were all quite unanimous in stressing the importance of the line's proximity to their project.

"Transit proximity is important to the success of this type of project. It's one of the few projects where it is literally in the same site as the station. So people have almost unlimited possibilities to where they can go from this project. Get on a train or a bus to go to the airport or shuttle to the Dodger's Stadium or get on the Gold Line and go to Pasadena or the Blue Line and go to Long Beach. The possibilities are almost endless as far as where they can get to without ever getting into a car from that particular site. That's one of the things that attracted us to wanting to be involved in this project. It was this great opportunity to work on a project in a historic site and provide some quality housing for people to access all these opportunities for transportation systems" (Getman, Mozaic Apartments).

"The advantages are terrific, especially in a place as beautifully woven together as Pasadena. You can be living here and be within walking distance of a million sq. ft of commercial space and 20, 30, 40 thousands jobs. I don't see any disadvantages. The noise of the trains is less than that of cars. There is no pollution. Now, it is a very expensive system and it can't solve the mobility problems of the entire city, but that has a lot more to do with densifying the districts and neighborhoods around the trains and getting people there" (Polyzoides, Moule – Polyzoides).

"Line adjacency ensures that Whole Foods has a captive audience that will hopefully view the retail and its location positively" (Shen, KTGY).

"For the retail component, proximity to transit allows for the potential of capturing thousands of users who are already out of their cars. For the residential component, proximity allows for alternative modes of transportation, which can be a major plus" (Chang, Studio 111).

Tensions

While the aforementioned motivations certainly incentivize some developers to build around transit stations, our interviews also revealed a number of tensions and challenges emerging at different points in the planning and development process. To capture some of the broader concerns and paradoxes voiced in the interviews, we have identified a series of tensions. Generally speaking, these tensions represent potential contradictions that can arise between the goals of TOD development and aspects of actual implementation. These will inform the discussion of strategies and recommendations that will be discussed in Section 4 of this report.

#1: Changing a long-standing urban form dominated by low-density, single-family uses

Where TOD is being developed in and around established residential neighborhoods, interviewees spoke of a tension between integrating the broader TOD goal of encouraging higher density dwellings near transit stops and the desires of the community to maintain the character of existing built form. Low-density communities of single-family homes may initially feel more threatened by the introduction of higher density housing or mixed use developments in their neighborhood, and cannot always appreciate the potential of accommodating smart growth or bringing in more urban amenities. This creates a design challenge for how to make higher density look less dense, as well as a broader challenge for "bringing the public along" to share the conception of a TOD project. Questions arise about how this responsibility for working with and educating the public is shared between cities and developers:

"Density is a remarkably ugly word all around Southern California because people just took boxes clad in whatever they wanted in the '60s, '70s and '80s and just airdropped them into really tender neighborhoods. And now neighbors are by-and-large horrified at the thought of a shift in density or type and they are against it at every level. So to go to them and tell them 'Look I'm bringing you some good news, you know, building at 10 times the density around your neighborhood," they are very upset actually, and it takes a long time to work this out with them" (Polyzoides – Moule - Polyzoides).

"[Mission Meridian Village] is illustrative of how difficult and many faceted infill development is especially in Southern California when it goes through these small communities, because South Pasadena is typical in the level of community involvement and controversy about development in general and the kind of scrutiny that's given to projects" (Forbes, Former Assistant City Manager, City of South Pasadena).

The paradox of trying to conform to the existing low density urban form was brought up by developers who had the dubious distinction to be the first to introduce higher densities in a neighborhood:

"You're working in a redevelopment area and the redevelopment criteria call for density increase, [but also to be compatible to the existing character of the neighborhood]. And because you're the first in the neighborhood to do it, you're not compatible with the

neighborhood, which makes density incompatible with redevelopment goals" (Empakeris, DE Architects).

Architect Don Empakeris does not limit the problem to how neighbors perceive density, but also what they think about transit:

"I see [TOD as] an opportunity to link the little neighborhoods together and give people opportunity to explore other neighborhoods on a casual basis. On negative part: in LA there is still a tremendous fear about what transit is. Here the mentality is that you're taking the bus because you can't afford to drive" (Empakeris – DE Architects).

Necessity sometimes prompts inspiration and innovation. To respond to the concerns of high-density urban forms posed by neighbors and to mask the significant density of the Mission Meridian and Archstone developments, architect Stephanos Polyzoides used a concept that he calls "blended densities":

"In both the Mission Meridian and Del Mar cases the concept that we utilized was that of blended densities, we took the entitled density, the average density and instead of making each one at the average density, which is the tradition of public housing, the tradition of all housing, in this country and the world for that past 100 years, we took the density and shuffled it into a variety of building types, some of them much higher than the average density and some of them much lower. We arranged these pieces on both sites in a manner that allowed them to better relate to their neighbors because the sites are in one case 1.65 acres and the other almost 4 and a quarter, there's enough land there to arrange the building in a way that begins to differentiate the site in different ways" (Polyzoides – Moule-Polyzoides).

#2: Market realities vs. attracting desired tenants

Another tension exists between the desire for pedestrian uses and market realities. In some cases the commercial uses that cities or developers are interested in attracting cannot afford the high rents in these districts. In other cases, city desires for tax revenue may encourage certain uses or a mix of uses that interferes with creating the best mix of uses (pedestrian-oriented and transit friendly) for a TOD.

"The problem is that the type of commercial tenants are not always exactly what the city wants. For instance, although we would all love coffee shops and pedestrian-oriented retail, we're dependent on the market and financial partners who often prefer corporate tenants. So in some cases the market isn't able to provide the ideal pedestrian-oriented users. So in some cases we have offices, dental offices, software and media companies which provide pedestrian orientation but maybe aren't the biggest drivers of pedestrian activity." (Freeman, JSM Construction).

For residential units, high rents and sale prices in TOD areas (where land values and construction costs are in many cases relatively high) mean that units are more likely to be occupied by more affluent households with multiple cars, and thus not by those who are transit dependent. This creates an ongoing challenge and tension for transit agencies, planners, and city council members who want TODs to provide a resource for those who need it, to boost transit ridership, and to lessen automobile use in the city.

"We have 150-170 residents and about 10-20 use the Gold Line. I guess it is a selling point. But I don't believe it's a big draw for our tenants unfortunately because the cost of land, construction, and affordable housing requirements drives up rent levels. We have tenants who can pay \$3,000-4,000 a month for rent. This type of tenants typically owns an automobile; they're not really bus riders" (Freeman, JSM Construction).

The introduction of high density development in a neighborhood without a simultaneous modal change from driving to walking, biking, or riding transit is likely to increase traffic congestion in the immediate area, a concern raised by many critics of high-density projects.

#3: Desire for affordable housing vs. making projects "pencil out"

Some developers (especially non-profit developers) and planners expressed a desire to build more affordable housing units near Gold Line stations. These efforts meet resistance on two fronts. The first is financial constraints not adequately covered by incentives or subsidies. High construction and land costs make it difficult to develop affordable units and still have a project pencil out, leading many developers to choose to pay in lieu fees instead of building affordable units. Second, NIMBYism on the part of residents who view affordable housing negatively – as something that will bring down the value of their homes, or introduce "undesirable" low-income neighbors – can interfere with the development of affordable units. According to city planners Vincent Gonzalez and John Poindexter:

"Many developers in Pasadena choose to pay an in-lieu fee instead of providing affordable housing. Affordable housing projects generally don't get built in Downtown Pasadena because land prices are so high. In contrast, developments north of the freeway often have trouble getting financing because financiers are concerned about the neighborhood" (Gonzalez, Project Manager, City of Pasadena).

"The city [of Pasadena] has increased inclusionary zoning requirements from 6 to 15 percent. Affordable housing is really challenging. The biggest impediment to building affordable housing where the city wants to is the state regulations that allow developers to opt out of the inclusionary requirement by paying an in lieu fee. As a result of this regulation, the city has a flush affordable housing trust fund, as opposed to a sufficient supply of affordable housing. What is a further impediment to affordable housing being built is the cost of land in Pasadena, especially around the transit lines. Even with that impediment, Pasadena is still able to get a good number of affordable units built in rental projects. But condo projects are a challenging problem, with perhaps the only solution being to change the state law. This is a real challenge for Pasadena because so many of the projects are condo projects" (Poindexter, Planning Manager, City of Pasadena).

An alternative to requiring developers to provide affordable housing units as part of their project is to collect in lieu fees. The State of California requires that developers be allowed this option. In Pasadena, in lieu fees are deposited into a trust fund and are being used by Pasadena's Housing Department to subsidize affordable housing developments. But even with this approach Pasadena has insufficient affordable housing in relation to the huge demand for it, according to Planning Manager John Poindexter.

Nonprofit developers who are in the business of building affordable housing are concerned about its high cost.

"The land prices [in Lincoln Heights] are comparable to other areas so it is hard to make affordable housing work. The opportunities are hard everywhere. People are competing for scarce land so it is not worse or better along the Gold Line" (Lehman – Livable Places).

Such concerns are shared by for-profit developers, who typically describe the requirement for affordable housing as an impediment to TODs:

"It is very, very difficult to do transit oriented development and have inclusionary housing included. The bottom line is it doesn't work to have a very low or moderate-income component. In our opinion, it all but makes it impossible to work. We either don't purchase those sites because they don't work economically, and they end up going into some kind of tax credit program or redevelopment agency where they can get tax credit or some cities allow us to pay a small in-lieu fee for the affordable housing portion, so we basically pay into an affordable housing fund, and once we do a one time payment we don't have a requirement going on forever in the project. Affordable housing is a huge constraint to TOD" (Mozaic Apartments developer).

Developer Marios Savvides drew out a peculiarity of the affordable housing density bonus in LA that may be preventing affordable units from being built in the city:

"State law says that if you build affordable housing, city must give you a density bonus. But LA doesn't give you an incentive, it makes you pay extra... the problem in LA is that the bonus doesn't translate to an increase in FAR, just in the number of units. A commercially zoned parcel of 10,000 square feet and FAR is 1. I can build 10,000 square feet with the density bonus but there is another restriction. If I want to provide affordable housing units I get a 25% bonus. Instead of 10 units, I get 12.5 (rounds up to 13 units.) But I cannot build more square footage, because they don't give you the FAR increase. I have the same 10,000 square feet that you could sell for \$500 per square feet, but now you're selling 9% for \$70-75 per square feet. If you do the math, you're losing money for building affordable housing. In contrast, in Santa Monica, if the FAR is 1, and you want to do affordable housing, there is no limit on the number of units. If you build 10% affordable, they give you 25% increase in FAR. Instead of 10,000 square feet, you can build 12,500 square feet" (Savvides – West Development).

One for-profit developer, AMCAL Multi-Housing Inc., has made substantial headway in developing affordable housing at the Lincoln Heights station. One of AMCAL's specialties is leveraging low-income housing tax credits. They have developed partnerships with nonprofit housing developers such as Livable Places and W.O.R.K.S to help gain entitlements, and have enjoyed strong support from the city council office.

#4: The parking paradox

Another important tension emerges around parking requirements for TODs. It is difficult to strike the right balance between providing enough parking for residential and commercial tenants and customers who own cars and/or access the area by car, while accounting for those who access the site by rail and encouraging more people to do so. Too much parking might encourage people to drive when they could just as easily ride the train, whereas too little parking may frustrate residential and commercial tenants. The parking paradox poses a number of difficult challenges for planners and cities. Municipal

⁸ The City of Los Angeles's FAR policy may have changed since this interview was completed.

decisions about residential parking requirements may contribute to how quickly new and existing residents choose transit use over car use. As Donald Shoup (2005) has explicitly shown, building parking spaces is expensive and takes up valuable land that could be turned into more residential or commercial square footage. As developer Allen Freeman from JSM Construction claims, "[W]hen you're designing buildings it's always a matter of the cost of the parking and then the density you can do."

On the other hand, some developers are concerned about the marketability of their project if it does not have the "right amount" of parking. The developers we interviewed were equally divided between those who wanted to have the ability to build more parking and those who thought that cities were requesting too much parking:

"Parking is the biggest concern. Even though this is a TOD and shouldn't need as much parking for transit riders, with the exception of our retail component, the city still requires the same amount of residential parking whether you are right on top of the Gold Line or twenty miles away. In the end, it is the market that will decide how much parking the project needs, and if the transit line is successful, that amount should be less than what is currently required. In order to make everything work out, you have to build at a high-enough density, especially with land prices nowadays.... The goal of any TOD is that people will not be using their cars as much. I personally believe there are some people in LA who can get into this program and not need their car as much or maybe not at all. Here in Pasadena we are in walking distance of anything you could ever want. You could live here without a car, but trying to convince people of that is going to take time" (Winsryg-Archstone).

"It is an unfortunate waste of transit resources to be using money at transit sites for parking. At Del Mar [Archstone], there are 600 parking spaces for residents and 600 for the park and ride – but the 600 park and ride spots are nowhere near capacity. There shouldn't be transit parking at urban transit stops. ... The CEQA process dictates a parking obligation that leads cities to say 'you have a parking obligation, this is the ratio and you have to live with it.' Some are able to find a way to say 'well you're adjacent to transit and we want to join you in encouraging transit ridership and we support a lower ratio'" (Hrovat - Urban Partners).

"Cities don't understand [the vision]...and parking is still a predominant issue. The amount of parking you have to provide and the cost of subterranean parking will always impact how much retail you put in. It becomes a numbers games" (Empakeris, DE Architects).

Still, some want to be able to offer more parking:

"A disadvantage for TODs in certain cities is that they have parking maximums, meaning that even if the developer was inclined to provide additional parking he would not be allowed to do so" (Chang - Studio 111).

"The parking became problematic because there's a maximum count on the parking as opposed to a minimum count, which we normally run into. And the lender wouldn't lend money on the project if it didn't have enough cars for a more conventional parking count. We negotiated with the planning department to put an increase in the number of cars. They let us have 1.5 cars per unit [instead of the initial 1.0]" (Getman, Mozaic Apartments architect).

Understanding the best parking levels and requirements to mitigate this tension between TOD objectives of high transit ridership and the demand for parking remains a challenge:

"The Pasadena TOD regulations cap parking at 1.75 spaces per unit. The Westgate project is right at the parking maximum because while the Gold Line could and should work, the public hasn't embraced it just yet. It's a tough balance because you want to build a project next to transit and encourage people to use it, but at the same time, you have to provide amenities such as parking to market your units and compete with the surrounding developments. The challenge for cities, developers, and others who are encouraging the use of public transportation is to meet the market's current demand for parking and also make a project pencil out" (Bunker, SARES•REGIS Group).

#5: Desire for a template for TODs vs. desire for flexibility

Some expressed frustration with the lack of a clear and consistent vision of TOD goals by cities which could be expressed in a template of standardized procedures that developers and architects could use to navigate the approval processes in each city. At the same time, some developers and architects raised concerns about being constrained by rigid and inflexible guidelines or requirements which could prevent the development of new approaches and "best practices" that have not yet been considered or tried elsewhere. The tension is clearly expressed in the following comment:

"One thing that helps is to have the rules in place ahead of time, with a little bit of flexibility for each site, because every project is different and every site is different. There are nuances there, as long as the city recognizes that within the site plan there will be quirks. Having the zoning in place that really works for transit-oriented development is a big step, because that gives certainty to developers to go into a site and change the site, and try to get agreements about the land. The rules are already set; they know how to underwrite it. That's a big part of it. At the same time, however, we can argue that, one of the benefits of not having all the zoning in place, and kind of making it up as you go along, is we can guide the process to give us the best project that we can give. That certainly helps" (Powers, BRE).

Some developers clearly favored a preset and clear articulation of city goals and requirements which is consistent and does not change from project to project:

"I would like a clearer articulation of the city's goals – so you can address how you are meeting the goals instead of formula-driven this or that" (Empakeris – DE Architects).

When this project was started, Urban Partners didn't know what kind of concessions they could get — obviously they had to give up an easement through the center of the property. It may always have to be a negotiation, but it would be nice if there were at least an understanding that if, for example, the Metro comes through here then you can probably move your density around, or have a parking reduction. Everything ended up being negotiation, and it comes down to personal relationships. We have very good relationships with the people at Metro and at the Blue Line Construction Authority [the Authority which coordinated the construction of the Gold Line], so if we have a problem we can call them up and say — "hey what's going on here?" and vice versa. With any kind of development you have to have these personal relationships. But if that

relationship doesn't exist or goes away there should be an initial structure that could be understood by both parties" (Winsryg -- Archstone).

Other developers opted, however, for flexibility and requirements tailored to specific projects:

"[We need] flexibility in requirements, density, parking, open space and those sorts of issues. It's too restrictive on what they count and don't count. They have particular dimensions they use and where things are located. It should be more flexible on a project by project basis. You can have a project that meets the spirit of, maybe not the letter of the law" (Mozaic Apartments developer).

#6: Development incentives vs. requirements/fees

Incentives such as density bonuses, higher floor-area ratios and building heights, and decreases in parking requirements allow developers to improve the profitability of their developments. Other requirements and fees can be disincentives to development. For instance, one developer spoke of the open space fee being based on the number of units built, as opposed to being based on square footage developed:

"A lot of developers fought them on \$20,000 per unit recreation fees. They dropped it to \$11,000 – because it was discriminatory to the poor. If I built 6 huge luxury units, that's \$120,000 instead of \$500,000 for 25 units! There was some discussion about whether it would be based on square feet instead of per unit [but nothing has happened with that.]" (Savvides, West Development).

Developments at the Lincoln Heights station area were initiated after the City of Los Angeles expanded its "adaptive reuse" ordinance in 2003 to include the neighborhood of Lincoln Heights. This ordinance relaxes building requirements with the goal of streamlining the conversion of older, vacant commercial buildings into residential units and provided a substantial incentive for developers to invest in the area. Created in 1999, this ordinance is credited with fueling the downtown residential revival.

Planners revealed that the decision of whether to provide development incentives or to impose development fees and other requirements represents a delicate balance with market forces in a given station area:

"The City of Pasadena does not provide financial incentives in the Central Business District. The real estate market is strong enough to ensure that land development is a competitive process" (Gonzalez, Project Manager, City of Pasadena).

"There's a very high market right now, so any place that we give someone more in the way of development potential, we make the areas very attractive" (Maben, Planner, City of Los Angeles).

#7: Development politics—involvement of city council members in planning

The politics of development creates yet another tension. In cases in which council members are in the position to approve and deny development proposals with relatively little coordination with the

⁹ The City of Pasadena's policy may have changed since this interview was completed.

structured planning process, a developer may cater to the councilperson's desires and preferences first, as a strategy to get the project approved in a timely fashion. Developers looking to move a project along quickly while keeping costs down may put more attention towards "what works politically" versus working with planners who are in a better position to determine which projects are consistent with TOD goals. This is clearly revealed in the following comment:

"LA does not have a design review board. The council office always gets involved. Usually they have an opinion; some council people have a real strong opinion. You take your plans to the council office to get their support. You sit down with their deputy planners and say, 'here is what I want to do,' and you try to get their support for it. We will come back and go, 'well Councilman X does not like how it looks.' The date of our community meetings depends on the availability of the councilmember's people, so they can be present and hear what the community has to say, so they can go back to him and say, 'hey, the people really like this.' You are forced into a decision, do you change it to get his support or do you leave it the way it is and do not get the support. Well, the answer is you change it because your project will not get approved without council support" (Scarpa – Pugh and Scarpa Architecture).

"The council was pretty progressive and really wanted [Mission Meridian Village] to happen, but they were completely for it in concept and they wanted to reserve their right to be highly influential on each detail that they got to be involved in. Whether it was the financing or the MOU or management or the parking plan or whatever it was. They wanted to have their stamp on each part of it" (Forbes, Former Assistant City Manager, City of South Pasadena).

At the same time, tensions can also emerge around the city maintaining neutrality when it is a partner in development:

"And I think the problem, the fundamental problem here was this was not a redevelopment project where the City said, 'we are going to build this thing, and we're going to put our resources to do that.' It was, 'this is something we want and because we have the particular politics that we do here, we can't really publicize that we are in partnership - and in fact we don't have a partnership agreement, we have a memorandum of understanding, which is different — with the developer.' The city council and the decision makers felt that they had to keep really at arms length the whole time or the very approval of the project would be jeopardized. Because they would be seen as having made the decision before the community could look at it' (Forbes, City Manager, City of South Pasadena)

Challenges

These tensions manifest themselves as different kinds of concrete challenges generally falling within four categories: a) Procedural/Planning; b) Economics/Market-related; c) Cultural/ Perceptual; and, d) Physical/Environmental.

Procedural/Planning Challenges

Developers, architects, and planners identified two major challenges as impeding the process of transit oriented development and causing, tension, delays, and costing money: 1) the difficulties of coordination among the multiple parties involved and 2) the complexity of building joint development and infill projects.

"Too many entities involved" Frequently TODs involve a variety of public, private, and sometimes nonprofit sector entities: Development companies, lending institutions, planning departments, transportation agencies, and community redevelopment agencies are some of the entities often involved during the planning process. It comes as no surprise that a multiplicity of agencies with different agendas and action protocols add a substantial layer of complication in the development process. The lack of coordination among agencies results in considerable frustration and expensive delays:

"There are times that there are conflicting messages when dealing with multiple agencies. Certain city requirements may conflict with what the Metro needs, or what we need. The coordination has turned into these reciprocal easement agreements, but to have that codified, or to have some sort of template that could be used for future projects would be very helpful. It would save us many hundreds of thousands of dollars of lawyers' time in coming up with these agreements. Nobody knew how to deal with each other. Since we've already done it we can benefit from it, but our information is proprietary. It would be nice if the city and the Metro would be able to create something that people could use as a template" (Winsryg --Archstone).

"At Del Mar Station, we ended up with multiple public agencies in our agreements." Three party agreements between the developer and two public agencies can be a real challenge. If you are Metro and I'm Urban Partners, we can work very well together. If we have an issue, the two parties can most likely figure it out and come to some fair resolution. If it's an agency building a rail line, Metro, and the private developer working together and all three parties having different primary objectives and priorities, gaining consensus and transacting is a real challenge. We ran into very real issues with the Gold Line Authority, Metro, and us as private developer. The relationships were good but getting two public agencies to agree on a solution, when each one of them is an 800- pound gorilla that gets its way makes it difficult and slows things down. It takes a high level of understanding these issues of transit oriented development to make it work well. TOD's require special skill sets in its team members in order to mitigate the risks of coordinating private development and transportation development. It comes down to this – do the agencies involved embrace and understand joint development? The cities and agencies that make a commitment to the joint development of TODs benefit from the TOD and all they offer" (Hrovat – Urban Partners).

Some public sector planners appear equally frustrated by the process while others do not perceive that the involvement of multiple public sector agencies is problematic as long as there is coordination:

"A lot of players are involved in the development of Blossom Plaza -- CLA, CRA, MTA, the Planning Department. And any time you get a lot of government entities, everyone has their turf they want to protect and then also you have legal processes that get very convoluted. Just writing the approval for the street downgrading was a convoluted process; you have to deal with DOT, you have to deal with your own engineering, and the CLA's office, and the CRA's got their part as well. So it took months for a development agreement to be adopted and signed, and for the negotiations about entitlements, street downgrading, the price that the city will pay for the parking structures" (Maben – City of Los Angeles).

"Each agency (CRA and the Planning Department) has its own rules, but they are not necessarily in conflict. For example, our land use designation for the Chinatown Redevelopment Project Area or any other area has to be in conformance with the General Plan's land use designations. So there is no conflict there. Our focus is more on putting the TOD's deal together. The City Planning Department, in general, is a regulatory department and we are an implementation agency; we play different roles. We work with other city departments to put the funding together. Because we contribute to the project and we also have jurisdiction over that area, the project has to go through certain processes that we've established. I don't see how the two bodies makes it become difficult, in fact most TOD projects are successful, because they are in a redevelopment area they can get additional funding from the CRA; and they can get additional expertise advice such as design review to enhance the project" (Huang, Senior Planner, CRA).

The complications of joint development. Related to the previous challenge is an additional one: TODs often involve joint development agreements where the public sector contributes to the funding and development of some segments of the project (e.g. affordable housing, parking structures, public facilities). While joint development often makes a project feasible by spreading the cost and risks of the development, it is also inherently more complicated:

"You're working with another entity. They're building their piece, you're building yours. Schedules get intertwined. One of the things we had to deal with since we purchased the project was that there were unresolved issues of which we were unaware. With the many units and size of project, you can't anticipate everything. Someone comes in and says, 'oh by the way, we need to have this put in.' So you have to anticipate additional costs, because you're going to find them. This is much truer with this kind of multiple-entity TOD project" (Winsryg -Archstone).

"This project is further complicated by the fact that part of the parking structure will be owned by the City of LA as public parking and park-and-ride parking for the metro station. So we're working out the financing in terms of how the city will come in to purchase that portion of the garage from us when construction is complete. The lesson learned there is that it takes a lot of attention to details and understanding that it's going to be a long process" (Blossom Plaza Developer).

"We had many coordination issues that we had to deal with. Our partners and BRE bought the site from the Blue Line Authority. The road that runs between our project and the parking structure is called the Gold Line Drive, and it's a private road. We own half of it and the Authority owns half of it. And there are reciprocal easements; there are utilities that run through there, there are maintenance easements, there are ingress to ingress easements. ... There are some construction easements that they needed and we needed, so there's a long document that we coordinated with them on. In addition, we coordinated all the way through entitlements and even through construction, because they were building the parking structure as we were taking things through entitlements' (Powers - BRE).

The complexities of infill development. Frequently, available lots along transit corridors such as the Gold Line, which pass through dense urban areas, involve infill development. As expressed in

the following comment, a host of parameters should be considered, ranging from adjacent neighbors not always thrilled with new developments to visual fit and connectivity with the existing urban fabric:

"Developing in the city of LA is a challenge because it's infill development. We very much believe in infill development but it means that you're dealing with existing constraints in terms of there's an existing community around there so you have to make sure that you're working with them very closely. There are obviously traffic issues or noise issues so all of those things are already present. There are still zoning challenges and it seems so often that you end up with a parcel zoned two different ways so it gets complicated how to handle that. And throwing TOD in the mix isn't necessarily all that complicated in and of itself but it ends up being one more thing that's thrown onto a very complicated project. It's obviously a tremendous benefit to the project but it's something that you have to be very careful with to make sure it works correctly and that you really think through connectivity issues and access and those things to make it a successful development and hopefully increase transit ridership" (Blossom Plaza developer).

Economic/Market-related Challenges

Despite the efforts of planners, architects, and developers TOD projects at times do not "pencil out." Developers complained about the high costs of land and construction as well as the cost of development fees in certain areas.

The high cost of land, typical throughout most parts of the metropolitan region, and the cost of construction, which developers claim is higher for mixed use projects, represent big economic challenges affecting the production of affordable units:

"I bought the land at the right price. A lot of developers have projects entitled that they can't afford to build anymore. They put them on the market for sale...but no one can afford to build them. Whatever is in the pipeline that is under construction for those that bought at the right price, these projects will be finished. Whatever is going into production in the next few years is coming to a standstill. There is a slow down in construction. And they are talking about a new ordinance to demand 25% affordable housing. That will shut down everything.... the cost of construction is, say, w/ permit fees, school fees, (soft costs + hard cost) \$425 per square foot and this does not include the cost for the acquisition of land" (Savvides- West Development).

High costs and ill-conceived municipal ordinances can push developers to favor high density or large residential projects with market-rate and luxury units:

"Each project is reviewed based upon its own merits, but depending on the conditions, we typically would favor a higher-density project to off-set land prices" (Winsryg - Archstone).

"As demonstrated by the fact that so many TODs are completely residential, mixed uses are constrained. Cities want both commercial and residential. Commercial projects, however, are problematic because of vacancy risk. The city must gain a better understanding of vacancy risk. They need to analyze smart rezoning to ascertain growth center in the future, and their financial impacts on existing and future businesses" (Shen, KTGY).

"The city raised parks and recreation fees to \$20,000 per unit. When the zoning changes went into effect, there would be significantly less units, at least 30% less (would have had to be 25 units). A lot of developers fought them and they dropped the fees to \$11,000 per unit" (Savvides – West Development).

Interestingly, we did not hear much concern expressed by developers about the difficulty of persuading lending institutions to fund TODs and mixed use projects. Admittedly, our interviewees belonged to a select group of developers who were all successful in attracting funding for their TOD projects. Nevertheless, they seemed to have an easier time ensuring development loans than developers who had tried to build around the Blue Line stations a decade earlier (Loukaitou-Sideris and Banerjee, 1995). Presumably, all the factors described earlier as "motivations" for TOD building outweighed the perceived challenges or risk from the part of the lending institutions.

Cultural/Perceptual Challenges

As noted in the previous section, developers, architects, and planners alike identified negative community perceptions and attitudes towards density as a major challenge to TODs. Because community interference can cause expensive delays or prevent a project from happening altogether, developers and architects often take up the task of educating the public. Our interviewees talked about the often protracted and costly process of community meetings. Nearly all viewed such meetings as an essential investment, but some asserted that city planning departments should shoulder the responsibility to educate the public about accepting density. Yet, as it stands now, developers acknowledge that without such involvement, they are vulnerable to vocal opposition from public contingents large and small when their projects come up for review:

"Out of necessity, developers have engaged in active, widespread community outreach.

Developers who wish to work in Pasadena are well aware of this political realty" (Gonzalez – Project Manager, City of Pasadena).

"At Messina we had a lot of issues with the neighbors....[T]he neighborhood doesn't understand the concept of much bigger buildings coming in. It is still a very difficult thing. In South Pasadena even the planning commission was out of sync with that idea. They have a small town mentality, and are experiencing growing pains. LA and areas around are having a hard time dealing with this transition. You're living in an area of two story buildings and suddenly someone proposes a 5-story building. At Marengo we made the mistake of voluntarily having a neighborhood outreach event at the Sheraton. The neighbors came in angry... By the final design review meeting the neighbors were supportive of the fact that we had worked with them. ..There is tremendous political animosity stemming from the suburban mentality, from people who aren't from cities, who grew up in suburbia. They don't understand why these kinds of densities have to exist" (Empakeris - DEA).

"In South Pasadena we had 26 meeting with the neighbors that lasted literally 5 or 6 years. It was very uncomfortable and strained, but ultimately very successful, though an economically calamitous process" (Polyzoides, Moule-Polyzoides).

"[The community] process isn't productive. Plus it's the city's responsibility to educate people as to what will be built. If you have a hearing without a city representative it becomes too chaotic. There is no moderator or mediator....[And] when the city does this people don't go.

They aren't interested in it. So the community has no input. When the city hosts meetings about changing design constraints there is no concrete project. It's a theory. But when we come in with a real building this big and this wide right in their face it's like, 'oh my god we don't want to have this'" (Empakeris – DE Architects).

We previously noted the difficulty of being the first developer to propose high-density project in the neighborhood, yet, as Pasadena planner Vincent Gonzales noted below, it can also be problematic to propose a project after the community has become "sensitized" to density.

"Once the community became exposed to increased development and construction activity, they became very concerned. By this time, however, Archstone/Smith Del Mar Station was already entitled. If Del Mar Station was the first new mixed-use project ever to be constructed in the City, we would have experienced more resistance and concern from the residential community much sooner" (Gonzalez, Project Manager, City of Pasadena).

Former City of South Pasadena Manager Gay Forbes echoed the idea that the challenge of introducing the value of higher density near mass transit is a planning issue, and thus something that cities must take responsibility for.

"[A] challenge is to do planning. The forces that are anti-development are probably not as large as the more reasonable people, but they're much more vocal and much more present at public hearings. And I think that's really the big issue. And...I think the public agencies have to be responsible. We have to do things right. We have to do things that work. And we have to deliver on what we promise... And for one reason or another - which is a whole different conversation about public management - that doesn't always happen" (Forbes).

Looking to the future, LA City planner Ron Maben acknowledged that this cultural / perceptual challenge is a serious one that may take decades to change.

"I think we're going to need a lot more density; right now we're more low-scale. I think that this is just the first generation of development. As we get into the second generation and third generation, you're going to see more of that... I think it's going to be another twenty-five to fifty years before people are more comfortable not having a car. I think Los Angeles is deeply rooted in the car culture and especially the first generation down here that's what they're finding; they still need their car" (Maben, City of Los Angeles).

Physical/Environmental Challenges

Interviewees spoke of numerous challenges related to physical and environmental constraints. In some cases, developers encountered a problem with building codes, stating that they simply were not designed to account for mixed uses in one building. In others, a restrictive code (such as the delivery truck ordinance in Pasadena¹⁰) significantly reduced the developable square footage. This and other complications of building mixed-use projects and coordinating construction on small infill sites are reflected in the following comments:

"The complications have to do with, for instance, restaurants, grease traps, which complicate the construction to a certain extent. Loading areas complicates the garage layout. Residential and commercial, you know, you see them a lot together but you have to think it out because, for instance, the sewer pipes coming out of the guy's toilet you don't want that above the kitchen of a restaurant. So you end up with situations like that, having to isolate the residential from the commercial. It's manageable but it adds a little bit of complexity" (Freeman – JSM Construction).

"From a physical standpoint, we always run into issues because of the Gold Line. Because the sites are so tight and relatively small, and they're infill in nature that physical construction staging is always, always an issue. Just the staging of materials to build buildings is always a challenge because you don't have any area next to the site that allows you to put lumber, steel, what have you, on the site because you're using every square inch of it, so staging is always an issue. At Union Station, when we did our excavation to put our below-grade parking garage, we had to design and engineer because we literally have a portion of our garage in our building over a train tunnel that's subterranean. .. So that's a little unique to where normally you don't have to worry about something like that, but it worked out fine" (Mozaic Apartments Developer).

Noise. Many developers mentioned noise as a consideration that impacted the design of TOD sites.

"And that's really one of the biggest challenges you have with transit-oriented developments -noise. Whether the train is directly adjacent or part of your project, – many of these projects are along highways or near highways, and you have issues that go along with that." (Powers -BRE)

"Noise from the train and vibration [are a challenge]. But people get used to them. We double or triple glaze windows. We spend extra money on windows and sound proofing on walls. But in the end you are in a commercial district so you live with the noise." (Savvides – West Development)

"There are noise issues related to the street, the bakery on the first floor, and the train. One concession that Public Utilities Commission agreed to regarding the train was to reduce the

 $^{^{10}}$ Pasadena doesn't allow delivery trucks to back into loading zones. Instead they are required to go in head first from the street. This requires more access space.

duration of the train warning bells from 90 seconds to 30 seconds." (Dieden – Mission Meridian)

Contaminated Sites. Complications surrounding contaminated sites were another challenge mentioned by developers. In the case of the Lincoln Heights station, contamination prevented the development of an adjacent parcel that might otherwise have been ideal for a high-density project. A representative from AMCAL noted that contamination made development on the north side of the Gold Line Station at Lincoln Heights impossible. The only solution for that parcel was to cap the contaminants with parking. A Blossom Plaza developer mentioned contamination as a challenge, but one that the City of Los Angeles was proactively mitigating:

"To the extent that cities can, and I know that there are programs out there that do this, the City of LA has funds for [remediation of contaminated sites]. They had identified sites that had contamination on them and cleaned them up before the land gets purchased by the developer. That's one risk that we can take out of the equation. From a developer's perspective, that's very helpful" (Blossom Plaza Developer).

Conclusion

Despite the above challenges all developers interviewed agreed that they would seek more TOD projects. They all echoed the comment of Archstone developer Matt Winsryg:

"Absolutely, we will seek more TOD projects! We're closely following the expansion, looking for new potential sites. LA is built out and land is expensive. You are hard-pressed to find ten acres of land in order to build the density that makes up for the land price. This is a great opportunity. But it's definitely a lot more work and more challenging to try and integrate everything. But we think it's worth it in the end" (Winsryg – Archstone).

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Section 3. Transit Oriented Development Design Guidelines

This section draws from in-depth interviews with developers, architects, and planners to present insights regarding TOD design guidelines for Gold Line station areas. The guidelines discussed by respondents and detailed below are strategies that seek to accommodate projected growth and allow for a good integration between the station, the new developments, and the existing urban fabric. Such design guidelines should fit the particular socio-physical context of each neighborhood. Ideally, they should be crystallized following a series of visioning sessions that cities conduct for their station areas; neighborhood input should be an important part of this process. This section does not suggest specific guidelines for each Gold Line station areas but instead sets forth some general design guidelines that should be applicable to most stations. In what follows, design guidelines are defined according to land uses, density, aesthetics, circulation, and parking considerations. These guidelines also draw insights from Anastasia Loukaitou-Sideris' previous research on TOD along the Blue Line corridor.

1. Land Uses

Mixed Use

Transit stations should be treated as neighborhood and community focal points. Encouraging mixed uses in the immediate vicinity of transit stations with convenient neighborhood retail and services can enhance the vibrancy of a transit stop. The mix of uses can be considered not only within an individual development, but also in the station area as a whole. It is important to achieve district-level thinking and coordination to reach the ideal mix of projects in a transit-oriented zone.

Residential

A variety of housing types including small lot, infill units, granny flats, and courtyard housing should be provided to fill the gap between conventional single-family and multi-family needs. These higher density forms could provide affordable alternatives while maintaining the ownership patterns and private yard features of the single-family home. Multi-family housing types should include a choice of townhouses, condominiums, and apartments.

Public Facilities

Certain TOD typologies may require or justify inclusion of community buildings and public facilities. These can include community centers, day care centers, libraries, post offices, parks, and recreation facilities. Such uses should be placed in central locations with easy access from the station and TOD residences. They should be directly visible from the transit station.

Open Spaces

In high density TOD areas parks should be developed to meet on-site population needs. Total open space acreage should be calculated based on the quantity of residential development, and should be no less than 3.5 acres per 1000 residents. Open spaces should not be designed as residual or left-over spaces but should be easily accessible and well integrated to the existing urban fabric.

2. Density

Higher densities should be encouraged in the immediate vicinity of a transit station through infill

development and the utilization of existing vacant parcels. Guidelines defining a minimum and maximum density should allow a certain level of flexibility for developers to promote mixed-use combinations and housing types.

The "intrusion" of high-rise structures in neighborhoods with low- and medium-rise buildings may, however, alter the general character of a neighborhood and is likely to be vehemently opposed by existing residents. Appropriate set backs and articulation of building facades should be considered to "break up" monolithic mega-structures. When the development involves many structures a gradual blending of different densities and different building types is recommended. An example of this blending of densities can be seen in the Mission Meridian project in South Pasadena.

3. Aesthetics

Pedestrian Friendliness

An enhanced pedestrian-oriented environment should emphasize commercial and mixed-use development at the ground floor level with street frontage. Facades of commercial buildings should be varied and articulated to provide visual interest to pedestrians and a pedestrian scale. Primary entrances to buildings should be from streets, courtyards, and plazas, and not from parking lots. Car access to parking lots for TODs should therefore be located at the rear of buildings, or from side streets. Drivers should be encouraged to become pedestrians; design can help compel them to enter from the front of buildings. Setbacks of commercial buildings should reflect the desired character of the neighborhood and bring buildings close to the sidewalk. Residential building setbacks from public streets should be minimized while maintaining privacy.

Amenities such as benches, mail boxes, newsstands, bike racks, and bus shelters should be provided along pedestrian corridors. Comfortable waiting areas appropriate for year-around weather conditions should be provided at all transit stops.

Street trees and landscaping should be selected to provide a unified image for the neighborhood as well as adequate shading for comfortable walking.

Safety

Appropriate lighting as well as building configurations offering opportunities for natural surveillance can enhance perceptions of safety and discourage street crime.

Compatibility with existing structures

New buildings should be compatible with the character and pre-existing area buildings. This can be accomplished in a variety of ways through appropriate massing, coloration, and texture of the new buildings.

4. Circulation

Pedestrians and Bicyclists

Streets must be designed (or redesigned) to facilitate safe and comfortable pedestrian access to the transit station. Similarly, careful attention should be given to the pedestrian circulation and connections

linking TODs with the station area. Access to the station should be enhanced through pedestrian connections such as mid-block walkways, arcades, paseos, and overpasses that link housing, commercial, and mixed-use developments to the station area. Crosswalks should be provided at all signalized arterial intersections. The surrounding area street network should provide multiple direct street and bicycle connections to the station with a minimum number of arterial crossings.

Pedestrian and bikeways underpasses should be discouraged because of safety issues. Pedestrian routes through parking lots should also be avoided.

Vehicles

Park-and-ride lots, kiss-and-ride lots and major bus drop-off areas should not isolate the station from the surrounding area.

5. Parking

On-Street and Surface Parking Lots

On-street short term spaces should be provided to accommodate drop-off, pick up and taxi services. Surface parking lots should be placed to the rear of buildings with entries and windows fronting on streets and sidewalks. The size of continuous surface parking lots should be limited. Preferably they should not exceed 2.5 acres.

Shared Use and Structure Parking

Shared parking is recommended for adjacent uses with staggered peak periods of demand. Parking structures should not be allowed to dominate the street frontage. Retail uses should be encouraged on the first floor of street fronting facades of parking structures.

Park-and-Ride Lots

Park-and-Ride lots should not act as buffers between the station and its adjacent mixed-use and commercial areas.

Landscaping

Sufficient trees should be provided in all surface parking lots. Approximately one tree per 4 parking spaces is recommended. Landscape treatment can define the edges of parking lots and separate them from adjacent sidewalks.

Section 4. Strategies and Recommendations for Maximizing the Development Potential along Transit Corridors

This section discusses an array of strategies that respond directly to the tensions and challenges arising from transit oriented development outlined in Section 2 of this report. We elaborate upon our nine recommendations in what follows.

#1: Plan stations near people and activities

The most fundamental antecedent of successful transit-oriented development is the existence of people and activities. Developers we interviewed stressed that a good location is the most important attractor to and motivation for building at a particular site. Therefore, choosing a good station location is crucial to stimulating development. Stations should be located at or in close proximity to the "front door" of communities, near other urban amenities and existing nodes and hubs of activity, such as schools, parks, and retail areas.

#2: Change a long-standing urban form dominated by low-density, single family uses

TODs frequently encounter opposition from neighbors who feel threatened by the 'intrusion' of higher density residential, mixed use and commercial uses, which they see as incompatible with the existing character of their neighborhoods. Changing the mind-frame of people accustomed to low density, single-use structures is challenging, but this is a barrier to development that must be overcome. Extensive education of the public about the potential benefits of TODs is especially important during this transitional period where transit use is not yet part of the region's culture.

Community meetings. Most of the developers interviewed recognized the importance of community meetings, which allow them to learn about and respond to community concerns and diminish public opposition to their projects. Still, such meetings can be contentious and require negotiation skills and a willingness to engage with a diverse (and occasionally angry) public. This process, once initiated, most often leads to additional meetings, which take up valuable time.

Educating the public: Building a shared community vision. We encountered ambivalence among some developers and planners as to who should take the initiative and be responsible for organizing community meetings and educating the public. At what point in the planning and development process should this public conversation begin? Ideally, a shared community vision can be formulated prior to the designation of a transit-oriented district as part of proactive public sector planning in anticipation of a rail line. The initial investment of time and resources to build public consensus around a station neighborhood plan (or transit overlay zone), listen to and address the concerns and preferences of the different constituencies, and discuss the environmental, economic, and social benefits of building higher densities at transit hubs beforehand may be well worth the investment in the long run.

Building an arsenal of "best practices." Municipalities preparing for TOD should compile an inventory of "Best TOD practices" – including good design models and innovative financing and construction practices – that have been successfully implemented by other municipalities. Having examples of good architecture and design to show concerned community members can be very powerful in changing the negative image that some people harbor about higher densities. Residents of adjacent single-family neighborhoods do not want to see monolithic mega-structures altering the character of their area. Thus, the way that buildings relate to the street and the rest of the

neighborhood, the type and treatment of ground floor uses, the relationship between open and enclosed spaces, the hierarchy between public, private, and semi-private spaces and the articulation of setbacks all have a role in how well a building blends with the rest of the neighborhood and must be carefully considered. The forms that people are exposed to impacts what they associate with transit-oriented development. Good examples are another way to help "bring the public along" in accepting higher densities in proximity to transit.

More density = More options. Finally, TOD's are more likely to be welcomed if they increase the kinds of housing options available. While ownership of a single-family home used to be part and parcel of the American dream, this dream now eludes a considerable segment of the population. Well-designed and centrally located TOD projects with smaller but more affordable units (condos, apartments, and lofts) can be appealing to those who are currently excluded from the single-family housing market.

#3: Actively recruit pedestrian-oriented, transit-friendly uses

The ideal of a transit village with pedestrian-oriented and transit-friendly uses, neighborhood retail, galleries, drug stores, bakeries, and coffee shops generating foot traffic cannot be realized if such commercial tenants do not have the financial means to rent space in new developments. Developers, who are interested in maximizing profit, are likely to opt for larger commercial tenants (banks, furniture stores, warehouses, etc.). Therefore, the public sector can play a crucial role in identifying and attracting desirable commercial tenants. In certain cases, cities may consider offering tax incentives or even rent subsidies (for the first few years) to help create a critical mass of desirable pedestrian-oriented tenants.

#4: Preplan for TODs

Transit overlay zones: balancing consistency and flexibility. Municipalities that preplan for transit oriented development in anticipation of a transit line are in a better position to attract developers and see TOD projects built in their jurisdictions. The development of transit overlay zones that extend ½ mile around transit stations and have defined guidelines and incentives for TODs can be extremely helpful to a) ensure that a city's vision and goals will be followed; b) minimize uncertainty for developers, letting them know beforehand what to expect from the city and what the city expects from them; and c) streamline the development process thus reducing time costs. Within such TOD overlay zones, developers should be able to build "by right" if they are in compliance with all code requirements. In addition to reducing time costs, this has the added benefit of diminishing the need of political involvement by members of the city council, which some developers and planners identified as problematic.

While allowable densities, parking and open space and other requirements should be consistent within the TOD zone, some flexibility should be allowed indicating different ways to fulfill requirements. For example, developers could be given the option of satisfying parking requirements on or off site (but within a maximum certain distance from their project). Similarly, the provision of affordable housing and open space could be satisfied either on site or through the use of in lieu fees.

#5: Make a desirable TOD project "pencil out"

Development "by right" in transit overlay zones. TOD projects often have additional costs and may take longer to complete because of the involvement of various public sector agencies and the complexities of building very close to a railway line (see the Section 2 of this report). Disposition and

development agreements for TODs frequently take many years to crystallize. This lengthy process adds to the cost of development and may scare developers away from building TODs. Municipalities wanting to attract development around transit stations should make every effort to streamline the development process and allow developers to build "by right" if they comply with all the requirements of a transit overlay zone.

Global EIR. Additionally, cities may wish to explore the idea of a "Global EIR" that will apply to all projects within the TOD overlay zone that comply completely with the requirements of the zone. This way, developers of projects within the TOD overlay zone will not have to carry the cost of individual EIRs for their projects.

Cost-sharing. TODs provide opportunities for joint development agreements and cost-sharing projects (such as parking structures, public plazas, etc.). Cities should explore such options as ways to bring amenities to their jurisdiction while also helping a desirable TOD project "pencil out." Cities can also be helpful by underwriting the cost of environmental mitigation of contaminated sites and identifying empty or underutilized sites and converting them to developable lots.

Incentives. An additional way for cities to motivate development around transit stations is through the use of development incentives, density bonuses, and reduced parking requirements, but these need to be considered carefully during the designation of the TOD overlay zone.

#6: Find the right balance between "carrots" and "sticks"

As discussed in the Section 2 of this report, it is challenging for municipalities to know when and at what level cities should provide development incentives so as to attract desirable development without "giving too much away." Development fees and other requirements pose a similar dilemma. They can bring desirable amenities to a jurisdiction (e.g. open space) but if they prove too burdensome they may scare developers away. Therefore it is very important that cities constantly monitor the balance between incentives and requirements (the carrots and sticks of development) weighing the condition of the economy and other market forces, the development potential and desirability of the site for developers, as well as whether a developer owns the land or only has an option to it.

#7: Make affordable housing "pencil out"

It was very clear from our interviews that for-profit developers found the requirement of affordable housing provision extremely onerous. Some even declared that they stay away from areas and developments with inclusionary zoning. On the other hand, nonprofit developers, eager to build affordable housing units near transit, typically stumble over the extremely high land and construction costs. It is abundantly clear that cities have to play a very important role in making affordable housing "pencil out." They can do so by:

- a. Providing density bonuses to developers building affordable housing in the form of increased FAR and more allowable units.
- b. Streamlining the development process, reducing the cost of building permits and other fees, and allowing affordable housing developers to build "by right."
- c. Subsidizing the cost of development by paying for the provision of certain infrastructure or facilities (e.g. parking).

d. Using in lieu fees provided by developers who choose not to build affordable housing to underwrite the cost of land for developers building affordable housing.

#8: Find a solution to the parking dilemma

Parking is often described by developers as the most difficult obstacle to building housing. The developers we interviewed were split between those who favored the reduction of parking requirements for TOD projects and those who felt that their project (and its chances for funding by financial institutions) would be handicapped by lowering the parking requirements. Cities can follow a number of approaches to address the parking dilemma for TOD projects:

- a. Decouple parking from residential development. As it already happens in many European cities, American cities can decouple the selling or renting of housing from the selling or renting of parking spaces. In this way, the market determines the true cost of parking. Potential home buyers and renters can decide how much parking they really need and if they wish to lower the cost of housing by purchasing less parking and switching to transit. Developers will have more flexibility as they can choose to build more or less parking based on market demand.
- b. *Develop maximum parking standards for TODs*. The decoupling of parking from residential development will allow municipalities to require maximum parking standards for TODs which are less than the typical 2 parking spaces per unit.
- c. *Investigate potential for shared parking*. A number of institutions (churches, schools, etc.) possess parking structures and large surface parking lots that remain empty after business hours and during the night. Developers or cities can lease parking spaces from them and develop agreements for shared parking.
- d. *Provide parking space to tenants in near-by parking structures*. Developers should be allowed to satisfy parking requirements by leasing parking spaces in adjacent parking structures. In certain cases, the cost of building such structures can be shared or completely underwritten by municipalities wishing to attract a particularly desirable project in their jurisdiction.
- e. *Make transit more appealing*. As a more long term strategy cities and transportation agencies should try to reduce automobile dependency and encourage transit use. This would require more efficient operation and coordination of the different transit modes, such as placing bus stops near transit stations, initiating shuttle services connecting residents to transit stations, and encouraging the development of commercial nodes near transit stations (with ATMs, grocery stores, dry cleaners, and other items of daily necessity). Cities and/or developers could also underwrite the cost of offering free weekend rail passes and monthly passes at reduced cost.

#9: Achieve better coordination among different public entities

Establish a Corridor Coordinating Council. The involvement of different public agencies and actors with different requirements, goals, expectations, and levels of authority, frustrates TOD projects and stymies opportunities for regional thinking.

To help alleviate this obstacle, our final recommendation is to establish a *Corridor Coordinating Council* as a Joint Powers Authority consisting of high-level representatives from all different public sector agencies involved in corridor development. This Council would help establish, in coordination with city planning departments, a corridor-level TOD vision and set goals that promote successful projects, with the understanding that development potential (land use mix and market strength) varies along the line. This Council would be authorized to oversee developments along the corridor as well as negotiate joint development agreements with private and nonprofit developers. Additionally, this body should have the authority to conduct district or corridor-level EIRs, initiate and carry out public hearings and community meetings to inform, educate, and listen to the concerns of the public. In this way, jurisdictions across the region could share costs while benefiting from the efficiencies of regional thinking and action. The challenge before us is large. In order to successfully transition to an urban fabric where higher-density transit nodes are valued as central to the social and ecological sustainability of our neighborhoods and our region, it is imperative that we find ways to cooperate.



Resolving Regional Challenges

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